

**SITE ASSESSMENT REPORT  
FOR  
ESI ENVIRONMENTAL, INC. SITE ASSESSMENT  
INDIANAPOLIS, MARION COUNTY, INDIANA**

Prepared for:

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
Emergency Response Branch  
Region V  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3507

Prepared by:

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WESTON START Project Manager	Rick Mehl
Telephone Number	312-424-3312
U.S. EPA On-Scene Coordinator	Verneta Simon

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**WESTON SOLUTIONS, INC.**  
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November 1, 2010

Prepared by:

 Date: 11/1/10  
Trena Seilheimer  
WESTON START Member

Reviewed and Approved by:

 Date: 11/1/10  
Rick Mehl  
WESTON START Project Manager

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## LIST OF ABBREVIATIONS AND ACRONYMS

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B&T	Barnes & Thornburg, LLP
CFR	<i>Code of Federal Regulations</i>
City	City of Indianapolis
DAF	Dissolved Air Flotation
DPW	Department of Public Works
ER	Environmental Restoration, LLC
ERO	Extended Range Organic
ERRS	Emergency and Rapid Response Services
ESI	ESI Environmental, Inc.
ft <sup>2</sup>	Square Feet
HazCat	Hazard Characterization
IDEM	Indiana Department of Environmental Management
Marathon	Marathon Oil Company
MCHD	Marion County Health Department
MCL	Maximum Concentration Limit
mg/kg	Milligram per kilogram
mg/L	Milligram per liter
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OSC	On-Scene Coordinator
Pace	Pace Analytical Services, Inc.
PCB	Polychlorinated Biphenyl
RISC	Risk Integrated System of Closure
RSL	Regional Screening Level
START	Superfund Technical Assessment and Response Team
SVOC	Semivolatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
TDD	Technical Direction Document
TPH	Total Petroleum Hydrocarbon
U.S. EPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound
WESTON	Weston Solutions, Inc.
WWTP	Wastewater Treatment Plant

## 1. INTRODUCTION

The U.S. Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc. (WESTON<sup>®</sup>), Superfund Technical Assessment and Response Team (START) to assist U.S. EPA On-Scene Coordinator (OSC) Verneta Simon in performing a site assessment at the ESI Environmental, Inc. (ESI) site (Site), located in Indianapolis, Marion County, Indiana (Figure 1-1). Under Technical Direction Document (TDD) number S05-0001-1008-022, U.S. EPA requested that WESTON START document current site conditions; obtain photographic documentation; and evaluate the potential for imminent and substantial threats to human health, welfare, and the environment posed by Site-related conditions. On September 1, 2010, WESTON START conducted a site walk under the direction of OSC Verneta Simon. U.S. EPA member Bill Ryczik, Indiana Department of Environmental Management (IDEM) member Harry Atkinson, ESI President Thomas Gawlik, and legal counsel representing ESI Barnes & Thornburg, LLP (B&T) member Michael Scanlon were also present during the site walk. On October 8 and 9, 2010, WESTON START and Environmental Restoration, LLC (ER) the Emergency and Rapid Response Services (ERRS) contractor conducted a site assessment under the direction of OSC Verneta Simon. Representatives from the City of Indianapolis, IDEM, United Water, Pike Township Fire Department, and Trustee were also present during the site assessment.

This Site Assessment Report is organized into the following sections:

- **Introduction** – Provides a brief description of the objective and scope of site assessment activities
- **Site Background** – Details the Site description and its known history
- **Site Assessment Activities** – Discusses the site observations made and activities conducted during the site assessment
- **Analytical Results** – Discusses the analytical results for samples collected during historical sampling events and the site assessment
- **Threats to Human Health and the Environment** – Identifies Site-related conditions that may warrant a removal action under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)

- **Conclusions and Recommendations** – Summarizes the site assessment findings and recommendations for further Site activities as needed

## **2. SITE BACKGROUND**

This section discusses the site description and history.

### **2.1 SITE DESCRIPTION**

The Site is located at 4910 West 86<sup>th</sup> Street in Indianapolis, Marion County, Indiana and is situated in a commercial and industrial setting. The approximately 8-acre Site includes a wastewater treatment plant (WWTP) consisting of wastewater processing equipment, a sludge treatment building, a sludge treatment process, an oil dehydration process, and a truck off-loading building (Figure 2-1). The southwest parking lot was sub-leased by ESI from Asphalt Materials who leased this parcel from Marathon Oil Company (Marathon). The office/maintenance building and rail yard unloading area was leased by ESI from Marathon. The Site is bordered to the north by an industrial property, to the south by West 86<sup>th</sup> Street with commercial properties beyond, and to the east and west by open land. The coordinates for the Site are latitude 39.912866° North and longitude -86.24213° West. It should also be noted that the ESI corporate office is located at 5232 West 79<sup>th</sup> Street, Indianapolis, Marion County, Indiana.

The Site is a provider of liquid waste management services and a recycler of used oil under 40 Code of Federal Regulations (CFR) Part 279. The primary wastewater processing equipment includes API oil/water separators, dissolved air flotation (DAF) units, oil storage tanks, sand filters, rotary vacuum filters, plate and frame filter press, and oxidation pit. The facility collects, processes, recovers, and disposes of non-hazardous wastewater, a byproduct of industrial and commercial manufacturing plants. The Site has the capability to treat a variety of non-hazardous liquids and accepts bulk, drum, and containerized liquids. All loads received into the facility are treated and processed to separate contaminants. The water collected during this process is discharged separately into the City sanitary sewer system and the contaminants are further processed into a form that allows proper recycling or disposal. Any oils recovered from the

process are shipped off-site for reclamation. The Site was designed such that all storm water falling in the Site is captured in its internal sewer system and is ultimately run through its wastewater processing equipment prior to being discharged into the City sanitary sewer system.

Figure 2-1 and Table 2-1 present the features of the Site. Over forty storage tanks (waste oil, raw water, sulfuric acid, caustics, hydrogen peroxide, and sludge), separators (oil-water), sumps (oil), and air strippers are located on-site and range in size as outlined below:

- One 1,000,000-gallon Oil Storage Tank (“A” on Figure 2-1) currently holds approximately 300,000-gallons of possible PCB containing sludge.
- Two 1,000,000-gallon Raw Water Storage Tanks (“J” on Figure 2-1) currently hold a total of approximately 1,500,000-gallons of material (East Tank contains approximately 900,000-gallons of sludge and West Tank contains approximately 600,000-gallons of sludge).
- Other storage tanks range in size from 3,000 to 90,000-gallons and contain waste oil, raw water, sulfuric acid, caustics, hydrogen peroxide, and sludge; however, the volume of material stored in each tank contents is unknown.
- Separator Tanks range in size from 3,000 to 30,000-gallons; however, the exact volume total of contents located on-site is unknown at this time.
- Sump is 4,000-gallons; however, the volume total of contents located on-site is unknown at this time.
- Air strippers range in size from 5,000 to 30,000-gallons; however, the exact volume total of contents located on-site is unknown at this time.

## **2.2 SITE HISTORY**

The following sections present the history of the Site.

### **2.2.1 2007 Release Information**

A Spill Report dated August 29, 2007, states that a release from the Site occurred on March 15, 2007, during a heavy rain event. The material spilled was untreated oil and water from the Site that entered the City sanitary sewer system via a by-pass sewer (used for permitted special waste), that had been left open. The amount of material released during this event is unknown; however, according to site personnel, it was less than 500-gallons. Due to the heavy rain event, the City sanitary sewers overflowed at several locations in the northern portion of Indianapolis, which resulted in the deposition of the material and sewerage onto vegetation in residential and



commercial areas (Figure 2-2 and Table 2-2). The basement of a residence was also impacted at one location.

Contaminated soil and debris was excavated from at least 25 residential properties and two golf courses. The affected basement was cleaned and the sump pump and hot water heater were replaced at the request of the homeowner. Subsequent to excavation activities, soil samples were collected from the residential properties using a 900 square foot (ft<sup>2</sup>) sampling grid and from the Coffin and Riverside Golf Courses using a 2,500 ft<sup>2</sup> sampling grid. Background samples were also collected at select areas.

Numerous sampling activities were conducted by various agencies from March through June 2007 (Table 2-3a through 2-3f) in the affected areas. Residential soil samples exceeded the IDEM Risk Integrated System of Closure (RISC) Residential Total Petroleum Hydrocarbon (TPH) Non-Default Closure Levels for extended range organics (ERO) (80 milligram per kilogram [mg/kg]). The residential exceedances ranged from 85 to 2,900 mg/kg. Several residential properties had TPH-ERO exceedances subsequent to two separate excavations. IDEM stated the remaining exceedances could stay in place since the soil may be (a) partially attributable to high background levels and (b) better remediated by natural processes including natural degradation and phytoremediation. All TPH results for the golf courses were below the applicable cleanup objectives. It should be noted that several concentrations of arsenic, mercury, chromium, lead, and various volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) exceeded IDEM RISC Residential/Industrial Soil Default Closure Levels and U.S. EPA Residential/Industrial Soil Regional Screening Levels (RSLs). It is unknown if the exceedances are related to the 2007 release.

Wipe sampling was conducted in the basement of a residence using a 1 ft<sup>2</sup> sampling grid. All results were below the applicable cleanup objectives.

Residential water well sampling was also conducted with all results below the applicable cleanup objectives with the exception of arsenic (0.012 to 0.016 milligram per liter [mg/L]) which exceeded the U.S. EPA Maximum Concentration Limits (MCLs). It is unknown if the exceedances are related to the 2007 release.

A professional landscaper restored the lawns after the properties had been cleared by sampling results. The course operators restored the golf courses.

A total of 6,000 gallons of oil and water was removed from the north storm sewer cistern and transported to the Site for treatment. A total of 5,800 gallons of oil and water was removed from the Coffin Golf Course Lake and transported to the Site for treatment. A total of 1,600 yards of contaminated soil and debris was removed from impacted areas and transported offsite for disposal.

The north storm sewer cistern discovered by IDEM and Marion County Health Department (MCHD) and initially identified as a potential source of the release was determined to be a non-functioning sewer and was not the source of the oil from the incident. On April 10, 2007, the pipe from the Site to the cistern was plugged and the cistern was filled with concrete to prevent any possible problems with this structure in the future. On April 17, 2007, the by-pass sewer was permanently sealed with concrete.

### **2.2.2 2007 PCB Containing Oils Information**

On July 18, 2007, the Site was notified by a customer that it had discovered approximately 28 mg/kg of polychlorinated biphenyl (PCBs) in a used oil shipment from the Site. The customer returned the shipment to the Site and it was placed in a segregated holding tank. Samples were collected from each of the product storage frac tanks and other process tanks located at the Site and analyzed for PCBs. The Site discovered that detectable PCBs were present in four loads of oily water from one generator/transporter. All equipment was decontaminated with kerosene beginning on August 1, 2007. The recovered kerosene was transferred to the Oil Storage Tank designated "A" on Figure 2-1. In addition to the recovered kerosene, all pumpable materials (liquid and suspended solids) that could be pumped through existing and temporary lines were pumped to this tank. Materials that could not be pumped to this tank were placed in designated frac tanks while recovered centrifuge solids were stored in the Oil Water Separator designated "H" on Figure 2-1. These materials were disposed of off-site in July 2008.

From October 2008 to August 2009, approximately 660,000-gallons from Oil Storage Tank ("A") were transported off-site for disposal. This tank currently contains approximately 300,000

-gallons of sludge.

### **2.2.3 2009 Release Information**

Reportedly another release occurred in early 2009. The City-Department of Public Works (DPW) collected background, sludge, and soil samples from various residential and commercial properties in February and April 2009 (Figure 2-2 and Tables 2-3a and 2-3b). Residential soil samples exceeded the IDEM RISC Residential TPH Non-Default Closure Levels for ERO (80 mg/kg). The residential exceedances ranged from 230 to 3,800 mg/kg.

### **2.2.4 Current Information**

In anticipation of the Site being permanently shut down, a Partial Closure Plan was drafted which focuses on managing storm water run-off post shut down to insure that the storm water remains uncontaminated and is properly drained from the Site. The storm water would be directed away from existing process equipment and allowed to flow into "Oil Creek" which runs to the east of the Site. Storm water currently empties into one of the two Raw Water Storage Tanks ("J").

In a press release dated September 27, 2010, ESI announced that it would discontinue accepting waste material and end its operations effective October 1, 2010.

## **3. SITE ASSESSMENT ACTIVITIES**

On September 1, 2010, U.S. EPA OSC Verneta Simon; U.S. EPA member Bill Ryczik, IDEM member Harry Atkinson; ESI President Thomas Gawlik; legal counsel representing ESI B&T member Michael Scanlon; and WESTON START member Marcus Muccianti conducted the site walk.

On October 8 and 9, 2010, U.S. EPA OSC Verneta Simon, WESTON START, and ER ERRS conducted a site assessment. Representatives from the City, IDEM, United Water, Pike Township Fire Department, and Trustee were also present.

The objective for this site assessment was to determine whether the Site poses an imminent and substantial threat to human health, human welfare, and the environment. Hazard characterization

(HazCat) was conducted by ERRS.

### **3.1 SITE OBSERVATIONS**

Observations during the site assessment are summarized below.

- An asphalt and concrete berm surrounds the entire Site. Sand bags make up a portion of the berm near the solidification area. A secure fence is also present along the perimeter of the Site.
- The 1,000,000-gallon Oil Storage Tank ("A" on Figure 2-1) currently holds approximately 300,000-gallons of possible PCB containing sludge.
- The two 1,000,000-gallon Raw Water Storage Tanks ("J" on Figure 2-1) currently hold a total of approximately 1,500,000-gallons of material (East Tank contains approximately 900,000-gallons and West Tank contains approximately 600,000-gallons).
- All storage tanks onsite seem to have secondary containment; however, a complete assessment of the storage tanks, separators, sumps, strippers, and buildings was not completed during this site assessment.

Appendix A provides photographic documentation of Site observations.

### **3.2 SAMPLING ACTIVITIES**

Sampling locations were selected based on site observations. Sampling locations were chosen to be representative of areas posing a potential risk to human health and the environment. The samples collected by ER ERRS were then HazCat to determine if additional analyses were needed. The HazCat Sampling Logs are presented in Appendix B.

ERRS collected 38 samples from onsite tanks, frac tanks, tankers, and roll-off boxes for HazCat. Figure 3-1 and Table 3-1 present the HazCat results. Of these samples, five (D-South, Tank, Frac 7, Frac 8, and Frac 9) were submitted to Pace Analytical Services, Inc. (Pace) for PCB analysis. In addition, the samples from D-South and Tank were also analyzed for toxicity characteristic leaching procedure (TCLP) Metal analysis.

## **4. ANALYTICAL RESULTS**

As stated above, numerous sampling activities were conducted by various agencies from March 2007 to April 2009 (Tables 2-3a through 2-3f) in response to the releases in 2007 and 2009.

IDEM stated the remaining residential soil exceedances could stay in place since the soil may be (a) partially attributable to high background levels and (b) better remediated by natural processes including natural degradation and phytoremediation. During sampling events in 2007, several concentrations of arsenic, mercury, chromium, lead, and various VOCs and SVOCs exceeded IDEM RISC Residential/Industrial Soil Default Closure Levels and U.S. EPA Residential/Industrial Soil RSLs. It is unknown if the exceedances are related to the 2007 release.

On March 22, 2007, eight residential properties were sampled and analyzed. Four of the eight residences had exceedances of the U.S. EPA MCLs for arsenic. It is unknown if the exceedances are related to the 2007 release.

On September 1, 2010, U.S. EPA, IDEM, ESI, B&T, and WESTON START conducted a site walk. No investigative samples were collected during these activities.

On October 8 and 9, 2010, U.S. EPA, WESTON START, and ERRS conducted a site assessment. Representatives from the City, IDEM, United Water, Pike Township Fire Department, and Trustee were also present. ERRS collected 38 samples for HazCat. Of these samples, five (D-South, Tank, Frac 7, Frac 8, and Frac 9) were submitted to Pace for PCB analysis. In addition, the samples from D-South and Tank were also analyzed for TCLP Metal analysis. The laboratory analytical results are presented in Appendix C. The results indicated the following:

- D-South: All PCB results were non-detect. TCLP Metals detected were barium, chromium, and lead; however these were below the applicable screening criteria.
- Tank: All PCB results were non-detect. TCLP Metals detected were barium and chromium; however these were below the applicable screening criteria.
- Frac 7: All PCB results were non-detect.
- Frac 8: All PCB results were non-detect.
- Frac 9: All PCB results were non-detect.

## **5. THREATS TO HUMAN HEALTH AND THE ENVIRONMENT**

Factors to be considered in determining the appropriateness of a potential removal action at a Site are delineated in the NCP at Title 40 of the CFR 300.415(b)(2). A summary of the factors

applicable to this Site is presented below.

- **Actual or potential exposure of nearby human populations, animals, or the food chain to hazardous substances, pollutants, or contaminants**

On March 15, 2007, a release from the Site occurred during a heavy rain event. The release was untreated oil and water from the Site that entered the City sanitary sewer system via a by-pass sewer (used for permitted special waste), that had been left open. At least 25 residential properties and two golf courses were affected by this incident.

Reportedly another release occurred in the beginning of 2009. Sludge and soil samples were collected from eight residential properties and one golf course.

Two releases (2007 and 2009) have occurred at the Site resulting in residential property contamination of soils with TPH-ERO exceeding the IDEM RISC Residential TPH Non-Default Closure Levels.

- **Actual or potential contamination of drinking water supplies or sensitive ecosystems**

Subsequent to the 2007 release, of the 25 residential properties affected, 10 of them have a drinking water well present. On March 22, 2007, eight residential properties were sampled and analyzed. Four of the eight residences had exceedances of the U.S. EPA MCLs for arsenic (concentrations ranged from 0.012 to 0.016 mg/L).

There is no data for residential water well sampling subsequent to the 2009 release.

- **Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release**

Over forty storage tanks (waste oil, raw water, sulfuric acid, caustics, hydrogen peroxide, and sludge), separators (oil-water), sumps (oil), and air strippers are located on-site and range in size from 3,000 to 1,000,000-gallons. Storm water could fill these tanks causing these tanks to overflow resulting in an offsite release.

Two releases (2007 and 2009) have occurred at the Site resulting in residential property contamination of soils with TPH-ERO exceeding the IDEM RISC Residential TPH Non-Default Closure Levels.

- **Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released**

A release from the Site occurred on March 15, 2007, during a heavy rain event. The release was untreated oil and water from the Site that entered the City sanitary sewer system via a by-pass sewer (used for permitted special waste), that had been left open. Due to the heavy rain event, the City sanitary sewers overflowed at several locations in

the northern portion of Indianapolis, which resulted in the deposition of the material and sewerage onto vegetation in residential and commercial areas.

Reportedly another release occurred in the beginning of 2009. Based on the additional release subsequent to the permanent closure of the north storm sewer cistern and by-pass sewer on-site, it is unknown how the material from the Site appeared in the City sanitary sewer system and was released in the above mentioned areas.

These two releases (2007 and 2009) have occurred at the Site resulting in residential property contamination of soils with TPH-ERO exceeding the IDEM RISC Residential TPH Non-Default Closure Levels.

## **6. CONCLUSIONS AND RECOMMENDATIONS**

This section discusses the conclusions and recommendations based on the site assessment findings.

### **6.1 CONCLUSIONS**

On September 1, 2010, U.S. EPA, IDEM, ESI, B&T, and WESTON START conducted a site walk. On October 8 and 9, 2010, U.S. EPA, WESTON START, and ERRS conducted a site assessment. Representatives from the City, IDEM, United Water, Pike Township Fire Department, and Trustee were also present. The objective for this site assessment was to determine whether the Site poses an imminent and substantial threat to human health, human welfare, and the environment. Based on the site walk, the following observations were made:

- The 1,000,000-gallon Oil Storage Tank (“A” on Figure 2-1) currently holds approximately 300,000-gallons of possible PCB containing sludge.
- The two 1,000,000-gallon Raw Water Storage Tanks (“J” on Figure 2-1) currently hold a total of approximately 1,500,000-gallons of material (East Tank contains approximately 900,000-gallons of sludge and West Tank contains approximately 600,000-gallons of sludge).
- Storm water currently empties into one of the two 1,000,000-gallon Raw Water Storage Tanks (“J”). Water from these tanks is then pumped out of the tanks and treated prior to discharge into the sanitary sewer.

- Other storage tanks range in size from 3,000 to 90,000-gallons and contain waste oil, raw water, sulfuric acid, caustics, hydrogen peroxide, and sludge; however, the volume of material stored in each tank contents is unknown.

A release from the Site occurred on March 15, 2007, during a heavy rain event. The release was untreated oil and water from the Site that entered the City sanitary sewer system via a by-pass sewer (used for permitted special waste), that had been left open. Due to the heavy rain event, the City sanitary sewers overflowed at several locations in the northern portion of Indianapolis, which resulted in the deposition of the material and sewerage onto vegetation in residential and commercial areas. At least 25 residential properties and two golf courses were affected by this incident. On April 10, 2007, the pipe from the Site to the north storm sewer cistern was plugged and the cistern was filled with concrete to prevent any possible problems with this structure in the future. On April 17, 2007, the by-pass sewer was permanently sealed with concrete.

Reportedly another release occurred in the beginning of 2009. Eight residential properties and one golf course had sludge and soil samples collected.

These two releases (2007 and 2009) have occurred at the Site resulting in residential property contamination of soils with TPH-ERO exceeding the IDEM RISC Residential TPH Non-Default Closure Levels.

In a press release dated September 27, 2010, ESI announced that it would discontinue accepting waste material and end its operations effective October 1, 2010.

Contaminants and conditions at the Site meet criteria established in the NCP for a removal action.

## **6.2 RECOMMENDATIONS**

Based on information gathered during the site assessment, WESTON START recommendations are summarized below.

- A removal of wastes at the ESI site should be conducted to reduce the potential for a release of contaminated materials that could result in, but not limited to, any or all of the following:



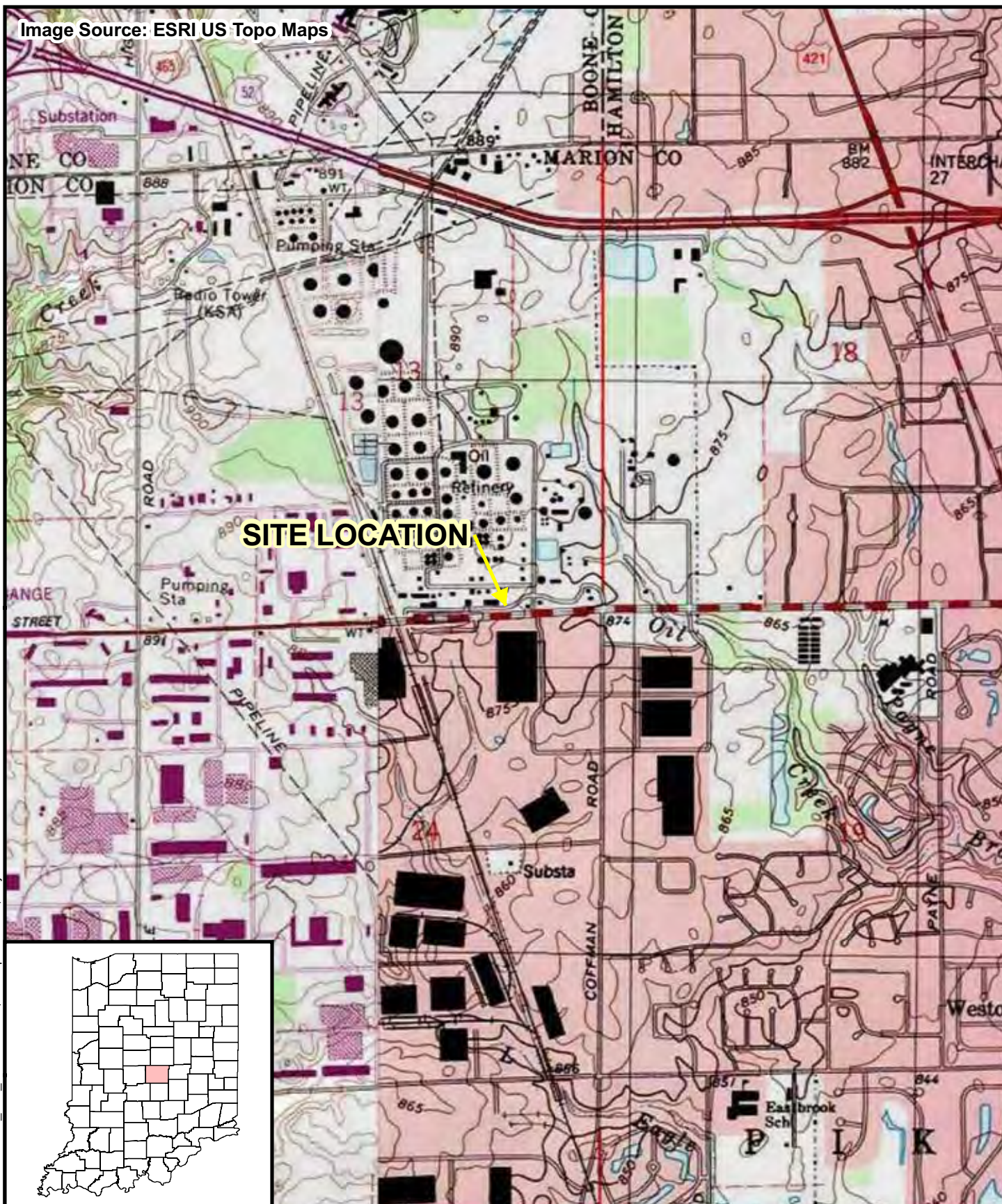
- Actual or potential exposure of nearby human populations, animals, or the food chain to hazardous substances, pollutants, or contaminants;
  - Actual or potential contamination of drinking water supplies or sensitive ecosystems;
  - Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release; and
  - Weather conditions that may cause hazardous substances, pollutants, or contaminants to migrate or be released.
- In anticipation of the Site being permanently shut down, a Closure Plan should be implemented to manage storm water run-off post and insure that the storm water remains uncontaminated and is properly drained from the Site. Storm water currently empties into one of the two 1,000,000-gallon Raw Water Storage Tanks ("J").

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## FIGURES

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Image Source: ESRI US Topo Maps



**Legend**

0 2,000 Feet



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**Figure 1-1**  
Site Location Map  
ESI Environmental, Inc.  
Indianapolis, Marion County, Indiana



Image Source: ESRI Bing Maps

File: D:\ESI\_Environmental\mxd\F2-1\_Site\_Features.mxd, 01-Nov-10 13:27, mejacm



### Legend

- Storm Sewer Manholes
  - Site Boundary
- 0 150 Feet



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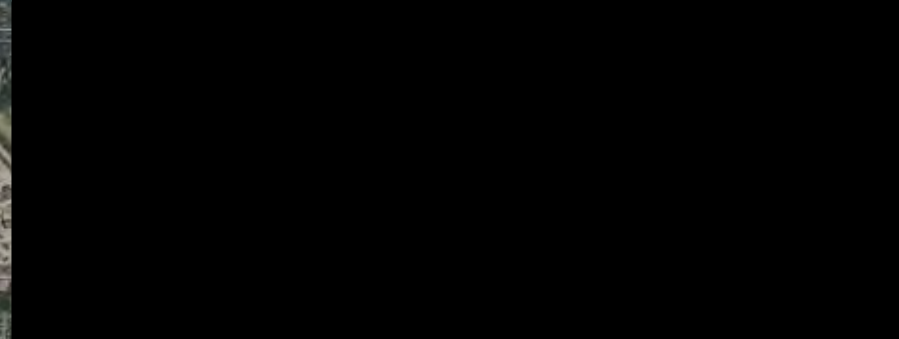
750 E. Bunker Court  
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Vernon Hills, Illinois 60061

**Figure 2-1**  
Site Features Map  
ESI Environmental, Inc.  
Indianapolis, Marion County, Indiana



Image Source: <http://gis.iu.edu:8080>

4910 West 86th Street



▲ 3502 White River Parkway

▲ 2401 Coldspring Road

### Legend

#### Historical\_samples

● Site

▲ Commercial

■ Residential

0 5,000  
Feet



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**Figure 2-2**  
Historical Sampling Events  
Location Map

ESI Environmental, Inc.  
Indianapolis, Marion County, Indiana





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## TABLES

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**Table 2-1**  
**Site Features Designations**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, IN**

Designation	Description	Size (gallon)
A	Oil Storage Tank	1,000,000
B	Oil Skimming Storage Tank	10,000
C	Sample Storage Building	--
D	Primary Separator	68,000
E	Frac Tank	22,000
F	Off Spec Oil Storage Frac Tanks	(7x) 22,000
G	Auxiliary Separator	30,000
H	Oil Water Separator	3,000
I	Chemical Building	--
J	Raw Water Storage Tanks	(2x) 1,000,000
K	Desmulsification Tank	90,000
L	Precipitation Tank	90,000
M	Caustic Storage Tank	3,000
N	Caustic Storage Tank	3,000
O	Caustic Storage Tank	10,000
P	Flocculant Building	--
Q	API Oil/Water Separator	30,000
R	API Oil/Water Separator Sump	13,000
S	Hydrogen Peroxide Storage Tank	7,000
T	Caustic Storage Tank	7,000
U	Caustic Storage Tank	10,000
V	Caustic Storage Tank	7,000
W	Sulfuric Acid Storage Tank	10,000
X	Not In Use	10,000
Y	DAF Separators	(2x) 30,000
Z	Sulfuric Acid Storage Tank	7,000
AA	Oil Unloading Sump	4,000
BB	Oil Storage Tanks	(4x) 20,000
CC	Sulfuric Acid Storage Tank	10,000
DD	Oxidation Pit	30,000
EE	Sand Filter	(3x) 2,000
FF	Sludge Tank	(4x) 12,000
		(3x) 15,000
		20,000
		22,500
GG	Off Spec Oil Storage Tanks	24,000
HH	Cent Feed Tank	22,000
II	Unloading Building	--
JJ	Small Air Stripper	5,000
KK	Large Air Stripper	30,000
LL	Control Building	--
MM	Storage Building	--
NN	Dehydration Building	--
OO	Solids Building	--

Notes:

Refer to Figure 2-1 for designation locations on-site



**Table 2-2**  
**2007 Spill Affected Areas**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Designation	Address	Water Well Present (Y/N)	Affected Area
Site		N	
Residential		N	basement floor drain back-up and flooded with sewage/oil
Residential		Y	manhole overflowed in side yard
Residential		N	manhole overflowed in front yard
Residential		N	manhole overflowed in front yard
Residential		N	manhole overflowed in front yard
Residential		N	manhole overflowed in front yard
Residential		N	manhole overflowed in front yard
Residential		Y	manhole overflowed in front yard
Residential		N	manhole overflowed in back yard
Residential		N	manhole overflowed in back yard
Residential		N	manhole overflowed along Grandview Drive
Residential		N	manhole overflowed along Grandview Drive
Residential		N	manhole overflowed in neighboring properties
Residential		N	manhole overflowed along Grandview Drive
Residential		Y	manhole overflowed in back yard
Residential		N	manhole overflowed in back yard
Residential		Y	manholes overflowed in Springwood Trail roadbed
Residential		Y	manholes overflowed in Springwood Trail roadbed
Residential		Y	manholes overflowed in Springwood Trail roadbed
Residential		Y	manholes overflowed in Springwood Trail roadbed
Residential		Y	manholes overflowed in Springwood Trail roadbed
Residential		Y	manholes overflowed in Springwood Trail roadbed
Residential		Y	manholes overflowed in Springwood Trail roadbed
Residential		N	manhole overflowed in back yard of neighboring property
Residential		N	manhole overflowed in back yard of neighboring property
Residential		N	manhole overflowed in back yard
Public	Manhole #930137	N	manhole overflowed in undeveloped woodland area
Public	Manhole #930009	N	manhole overflowed in undeveloped woodland area
Public	Manhole #930032	N	manhole overflowed in undeveloped woodland area
Public	Manhole #930033	N	manhole overflowed in undeveloped woodland area
Public	Manhole #930036	N	manhole overflowed in undeveloped woodland area
Commercial	Coffin Golf Course		
Commercial	2401 Coldspring Road, Indianapolis, IN	N	manhole overflowed in area of 11th Hole
Commercial	Riverside Golf Course		
Commercial	3502 White River Parkway, Indianapolis, IN	N	manhole overflowed in area of 5th, 6th, 10th, and 13th Holes and small pond

Notes:

Refer to Figure 2-2 for designation locations on-site

**Table 2-3a**  
**Summary of Historical Sampling Events**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample Date	Sampled By	Sample Area	Sample Type	Analyses					
				TPH <sup>1</sup>	VOC	SVOC	PCB	Metals	TCLP <sup>2</sup>
3/16/2007	IDEM	Unknown	Solid (soil)	✓	✓	✓		✓	
			Liquid (sewer)	✓ (no DRO)					
			Liquid (creek)	✓					
			Liquid (other)						
			Sludge (oil)	✓ (no DRO)		✓		✓	
3/16/2007	MCHD	Various Residential	Solid (soil)		✓			✓	
		ESI							
3/19/2007	ESI	ESI	Solid (soil)						✓ (no SVOC)
3/21/2007	City-DPW	Commercial (golf courses)	Solid (soil, bg)	✓				✓	✓
			Liquid (pond)		✓	✓			
3/22/2007	ESI	Various Residential	Liquid (water wells)		✓	✓	✓	✓	
3/26/2007	City-DPW	ESI-Storm Inlet	Sludge (oil)	✓				✓	✓
4/2007-5/2007	Keramida	Various Residential	Solid (soil, bg)	✓ (no DRO)	✓ (only PCE)				
		Commercial (golf courses)							
6/7/2007	Keramida	Residential	Wipe	✓	✓				
11/19/2008	City-DPW	Various Residential	Solid (soil, bg)	✓ (no DRO)					
			Solid (manhole)						
2/12/2009	City-DPW	Commercial (golf course)	Solid (soil, bg)	✓ (only ERO)					
		Various Residential							
4/7/2009	City-DPW	Various Residential	Solid (soil)	✓ (no DRO)					
			Solid (soil, bg)				✓		

Notes:

<sup>1</sup>-TPH includes DRO, GRO, ERO

<sup>2</sup>-TCLP includes VOCs, SVOCs, Metals

bg – background

City – City of Indianapolis

DPW – Department of Public Works

DRO - Diesel Range Organic

ERO - Extended Range Organic

ESI – ESI Environmental, Inc.

GRO - Gasoline Range Organic

IDEM – Indiana Department of Environmental Management

Keramida – Keramida Environmental

MCHD – Marion County Health Department

PCB – Polychlorinated Biphenyl

PCE - Tetrachloroethane

SVOC – Semivolatile Organic Compound

TCLP – Toxicity Characteristic Leaching Procedure

TPH – Total Petroleum Hydrocarbon

VOC – Volatile Organic Compound

Table 2-3b  
City of Indianapolis-DPW Historical Sampling Event Results  
ESI Environmental, Inc.  
4910 West 86th Street  
Indianapolis, Marion County, Indiana

Sample ID	Sample Date	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	TPH-DRO (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	PCBs (mg/kg)	Total Metals (mg/kg)								TCLP (mg/L)											
								As	Ba	Cd	Cr	Pb	Se	Ag	Hg	VOCs (µg/L)	SVOCs (µg/L)	As	Ba	Cd	Cr	Pb	Se	Ag	Hg (µg/L)		
Sludge	02/12/09	--	<u>3,000,000</u>	<u>67,000</u>	--	--	--	--	--	--	--	--	--	--	--	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Background		--	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		--	780	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1	04/18/07	BDL	1,300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
2		BDL	2,900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
3		BDL	1,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
4		BDL	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Background	11/19/08	BDL	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		--	78	--	--	--	--	--	--	--	--	--	--	--	--	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Sludge	02/12/09	--	<u>340,000</u>	<u>130,000</u>	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Background		--	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		--	8.9	--	--	--	--	--	--	--	--	--	--	--	--	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Background	04/07/09	0.36	400	--	--	--	BRL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		0.11	1,100	--	--	--	BRL	--	--	--	--	--	--	--	--	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Sludge	02/12/09	--	<u>390,000</u>	<u>96,000</u>	--	--	--	--	--	--	--	--	--	--	--	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Background		--	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		--	3,100	--	--	--	--	--	--	--	--	--	--	--	--	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Background	04/07/09	0.11	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		0.84	1,600	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1	04/07/09	9.1	3,800	--	--	--	--	--	--	--	--	--	--	--	--	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL		
Sludge	02/12/09	--	<u>450,000</u>	<u>82,000</u>	--	--	BRL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Background		--	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		--	230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Riverside Golf Course																											
Background	03/21/07	BRL	20	BRL	--	--	--	6.04	96.9	BRL	12.6	21.0	BRL	BRL	BRL	BRL	BRL	BRL	0.392	BRL	BRL	BRL	BRL	BRL	BRL		
1		BRL	210	BRL	--	--	--	5.84	89.2	BRL	13.4	24.1	BRL	BRL	183	BRL	BRL	BRL	0.297	BRL	BRL	BRL	BRL	BRL	BRL		
Coffin Golf Course																											
Background	03/21/07	BRL	37	BRL	--	--	--	4.63	58.9	BRL	7.1	37.2	BRL	BRL	246	BRL	BRL	BRL	0.588	BRL	BRL	BRL	BRL	BRL	BRL		
1		BRL	26	BRL	--	--	--	4.97	61.8	BRL	8.38	18.5	BRL	BRL	1120	BRL	BRL	BRL	0.713	BRL	BRL	BRL	BRL	BRL	BRL		
2		BRL	BRL	BRL	--	--	--	3.3	66.1	BRL	7.56	14.6	BRL	BRL	54	BRL	BRL	BRL	0.701	BRL	BRL	BRL	BRL	BRL	BRL		
Pond		BRL	BRL	7	BRL	BRL	--	0.062	1.74	BRL	0.145	0.195	BRL	BRL	1.03	--	--	--	--	--	--	--	--	--	--		
Background	02/12/09	--	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1		--	270	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
ESI - 4910 West 86th Street, Indianapolis, IN																											
Storm Inlet	03/26/07	190	<u>62,000</u>	<u>2,200</u>	--	--	--	1.08	43.9	0.367	16.3	17	BRL	BRL	BRL	70* (benzene)	140* (cresols)	BRL	0.322	BRL	BRL	BRL	BRL	BRL	BRL		

Table 2-3b  
City of Indianapolis-DPW Historical Sampling Event Results  
ESI Environmental, Inc.  
4910 West 86th Street  
Indianapolis, Marion County, Indiana

Sample ID	Sample Date	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	TPH-DRO (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	PCBs (mg/kg)	Total Metals (mg/kg)								TCLP (mg/L)									
								As	Ba	Cd	Cr	Pb	Se	Ag	Hg	VOCs (µg/L)	SVOCs (µg/L)	As	Ba	Cd	Cr	Pb	Se	Ag	Hg (µg/L)
Sludge	02/12/09	--	410,000	120,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Background		--	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1		--	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1	04/07/09	1.1	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1	04/07/09	0.14	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

- Exceeds IDEM RISC Residential Soil Default Closure Levels
- Exceeds IDEM RISC Industrial Soil Default Closure Levels
- Exceeds IDEM RISC TPH Residential Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent
- Exceeds IDEM RISC TPH Industrial Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent
- Exceeds U.S. EPA Residential Soil Regional Screening Levels
- Exceeds U.S. EPA Industrial Soil Regional Screening Levels

\* - all other constituents BRL  
"--" - not analyzed  
mg/kg - milligram per kilogram  
mg/L - milligram per liter  
µg/L - microgram per liter  
Ag - silver  
As - arsenic  
Ba - barium  
BDL - below detection limit  
BRL - below reporting limit  
Cd - cadmium  
Cr - chromium  
DRO - diesel range organic  
ERO - extended range organic  
GRO - gasoline range organic  
Hg - mercury  
ID - identification  
Pb - lead  
PCB - polychlorinated biphynels  
Se - selenium  
SVOC - semivolatile organic compound  
TCLP - toxicity characteristic leaching procedure  
TPH - total petroleum hydrocarbon  
VOC - volatile organic compound

**Table 2-3c**  
**IDEM Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	Non-Halogenated Organics** (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	Total Metals (mg/kg)							
							As	Ba	Cd	Cr	Pb	Se	Ag	Hg
Soil (LQ4137)	03/16/07	BDL	82000	220000	*0.49 (Eth) 1.5 (Sty) 2.7 (Xyl) 1.8 (Naph)	BDL	3.4	160	0.2	47	64	0.41	1.1	0.21
Soil (LQ4138)	03/17/07	220	370000	800000	*5.1 (Ace) 2.1 (2-But) 3.6 (Eth) 12 (Sty) 0.56 (PCE) 4.9 (Tol) 18 (Xyl) 0.92 (Iso) 4.9 (Naph)	BDL	3	410	0.98	150	130	0.33	3.4	0.54
Soil (LQ4139)	03/17/07	740	240000	NA	*2.7 (MIK) 5.5 (Ace) 7.4 (Ben) 1.1 (2-But) 0.45 (Chloro) 22 (Eth) 1 (Met) 1.4 (Sty) 1.7 (PCE) 89 (Tol) 0.62 (TCE) 100 (Xyl) 1.6 (Iso) 8.4 (Naph)	*440 (2-Met) 300 (Bis)	2.5	230	1.6	65	78	0.46	1.8	0.21

**Table 2-3c**  
**IDEM Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	Non-Halogenated Organics* (mg/kg)	VOCs (mg/kg)	SVOCs (mg/kg)	Total Metals (mg/kg)							
							As	Ba	Cd	Cr	Pb	Se	Ag	Hg
Soil (LQ4140)	03/17/07	370	330000	800000	*0.74 (Ben) 1.1 (2-But) 8.2 (Eth) 48 (Sty) 1.2 (PCE) 14 (Tol) 37 (Xyl) 1.4 (Iso) 9 (Naph)	BDL	2.9	350	0.61	160	130	0.37	3.8	0.79
Soil (LQ4141)	03/18/07	370	380000	880000	*0.85 (Ben) 1.3 (2-But) 7.9 (Eth) 13 (Sty) 1.8 (PCE) 14 (Tol) 38 (Xyl) 1.6 (Iso) 13 (Naph)	BDL	3.9	410	0.87	130	110	0.43	2.5	0.44
Liquid-Sewer (LQ4142)	03/17/07	3400	450000	BDL	*19 (Ben) 0.8 (Chlorob) 0.86 (Chloro) 1.6 (Cis-1,2-DCE) 71 (Eth) 6.8 (Sty) 15 (PCE) 180 (Tol) 6 (TCE) 310 (Xyl) 15 (Iso) 67 (Naph)	*530 (2-Met) 320 (Bis) 160 (Phen)	0.66	25	0.23	10	22	0.2	BDL	BDL
Sludge-Oil (LQ4145)	03/17/07	BDL	1300000	BDL	BDL	BDL	BDL	5.3	BDL	0.14	BDL	BDL	BDL	BDL

**Table 2-3c**  
**IDEM Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date	TPH-GRO (mg/L)	TPH-ERO (mg/L)	Non-Halogenated Organics** (mg/L)	VOCs (mg/L)	SVOCs (mg/L)	Total Metals (mg/L)							
							As	Ba	Cd	Cr	Pb	Se	Ag	Hg
Liquid-Creek (LQ4143)	03/19/07	BDL	2	5.1	BDL	BDL	BDL	0.059	BDL	BDL	0.008	BDL	BDL	BDL
Liquid-Other (LQ4144)	03/20/07	NA	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Exceeds IDEM RISC Residential Soil Default Closure Levels

Exceeds IDEM RISC Industrial Soil Default Closure Levels

Exceeds IDEM RISC TPH Residential Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent

Exceeds IDEM RISC TPH Industrial Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent

Exceeds U.S. EPA Residential Soil Regional Screening Levels

Exceeds U.S. EPA Industrial Soil Regional Screening Levels

\* - all other constituents BDL

\*\* - client provided material

mg/kg - milligram per kilogram

mg/L - milligram per liter

2-But - 2-butanone

1-Met - 2-methylnaphthalene

Ace - acetone

Ag - silver

As - arsenic

Ba - barium

Ben - benzene

BDL - below detection limit

Bis - bis(2-ethylhexyl)phthalate

Cd - cadmium

Chloro - chloroform

Chlorob - Chlorobenzene

Cis-1,2-DCE - cis-1,2-dichloroethene

Cr - chromium

ERO - extended range organic

Eth - ethylbenzene

GRO - gasoline range organic

Hg - mercury

ID - identification

Iso - isopropylbenzene

Met - methylene chloride

MIK - methyl isobutyl ketone

NA - not analyzed

Naph - naphthalene

Pb - lead

PCE - tetrachloroethane

Phen - phenanthrene

Se - selenium

Sty - styrene

SVOC - semivolatile organic compound

TCE - trichloroethene

Tol - toluene

TPH - total petroleum hydrocarbon

VOC - volatile organic compound

Xyl - xylene

**Table 2-3d**  
**MCHD Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date	VOC (mg/kg)	Total Metals (mg/kg)									
			As	Ba	Cd	Cr	Pb	Cu	Ni	Fe (µg/L)	Zn	Hg
1	03/16/07	BDL	4.0	345	1.1	65.9	96.7	690	60.1	13400	559	0.95
1	03/16/07	BDL	7.5	745	1.9	141	124	1190	107	NA	1020	1.6
<b>ESI - 4910 West 86th Street, Indianapolis, IN</b>												
1	03/16/07	*321 (toluene) 222 (xylene)	2.4	43.6	0.52	17.9	36.6	139	27.3	NA	152	0.17
1	03/16/07	BDL	4.3	358	1.0	70.5	112	861	66.8	NA	615	1.2
1	03/16/07	BDL	4.3	407	1.2	80.6	112	783	69.0	NA	604	1.2

Notes:

Exceeds IDEM RISC Residential Soil Default Closure Levels

Exceeds IDEM RISC Industrial Soil Default Closure Levels

Exceeds IDEM RISC TPH Residential Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent

Exceeds IDEM RISC TPH Industrial Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent

Exceeds U.S. EPA Residential Soil Regional Screening Levels

Exceeds U.S. EPA Industrial Soil Regional Screening Levels

\* - all other constituents BDL

mg/kg - milligram per kilogram

µg/L - microgram per liter

As - arsenic

Ba - barium

BDL - below detection limit

Cd - cadmium

Cr - chromium

Cu - copper

Fe - iron

Hg - mercury

ID - identification

Ni - nickel

Pb - lead

VOC - volatile organic compound

Zn - zinc



**Table 2-3e**  
**ESI Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date	VOC (µg/L)	SVOC (µg/L)	PCB (µg/L)	Total Metals (mg/L)								TCLP (ppm)								
					As	Ba	Cd	Cr	Pb	Se	Ag	Hg	VOC	As	Ba	Cd	Cr	Pb	Se	Ag	Hg
Soil Scrapings	03/19/07	--	--	--	--	--	--	--	--	--	--	--	BDL	BDL	3.23	BDL	BDL	BDL	BDL	BDL	BDL
1	03/22/07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--
1	03/22/07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--
1	03/22/07	BDL	BDL	BDL	BDL	0.23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--
1	03/22/07	BDL	BDL	BDL	0.014	0.18	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--
1	03/22/07	BDL	BDL	BDL	0.012	0.26	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--
1	03/22/07	BDL	BDL	BDL	0.014	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--
1	03/22/07	BDL	BDL	BDL	0.016	0.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--
1	03/22/07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--	--	--

Notes:

Exceeds U.S. EPA Maximum Contaminant Levels

-- - not analyzed

mg/L - milligram per liter

µg/L - microgram per liter

Ag - silver

As - arsenic

Ba - barium

BDL - below detection limit

Cd - cadmium

Cr - chromium

Hg - mercury

ID - identification

Pb - lead

PCB - polychlorinated biphenyls

ppm - part per million

Se - selenium

SVOC - semivolatile organic compound

TCLP - toxicity characteristic leaching procedure

VOC - volatile organic compound

**Table 2-3f**  
**Keramida Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date 1	PCE (µg/kg)	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	TPH-DRO (mg/kg)	BTEX (mg)	Sample Date 2	TPH-ERO (mg/kg)
1	04/17/07	BDL	16	800	NA	NA	05/21/07	420
2	04/17/07	BDL	BDL	730	NA	NA	05/21/07	230
3	04/17/07	BDL	BDL	430	NA	NA	NA	
4	04/17/07	BDL	BDL	650	NA	NA	05/21/07	420
5	04/17/07	BDL	BDL	280	NA	NA	NA	
6	04/17/07	BDL	BDL	340	NA	NA	NA	
1	04/18/07	BDL	BDL	610	NA	NA	NA	
2	04/18/07	BDL	BDL	1200	NA	NA	05/18/07	210
1	04/18/07	BDL	BDL	440	NA	NA	05/18/07	250
2	04/18/07	BDL	BDL	200	NA	NA	NA	
1	04/18/07	BDL	BDL	460	NA	NA	NA	
2	04/18/07	BDL	BDL	980	NA	NA	05/18/07	180
1	04/18/07	BDL	BDL	2300	NA	NA	NA	
2	04/18/07	BDL	BDL	2200	NA	NA	05/18/07	110
1	04/18/07	BDL	BDL	1300	NA	NA	NA	
2	04/18/07	BDL	BDL	2900	NA	NA	05/18/07	160
3	04/18/07	BDL	BDL	1200	NA	NA	NA	
4	04/18/07	BDL	BDL	500	NA	NA	NA	
1	04/17/07	BDL	BDL	100	NA	NA	NA	
2	04/17/07	BDL	BDL	86	NA	NA	05/21/07	39
3	04/17/07	BDL	BDL	120	NA	NA	NA	
4	04/17/07	BDL	BDL	190	NA	NA	NA	
5	04/17/07	BDL	BDL	460	NA	NA	NA	
Background	05/08/07	NA	NA	49	NA	NA	NA	
1	04/19/07	BDL	BDL	190	NA	NA	NA	
2	04/19/07	BDL	BDL	88	NA	NA	NA	
Background	05/08/07	NA	NA	140	NA	NA	NA	
1	04/19/07	BDL	BDL	340	NA	NA	NA	

**Table 2-3f**  
**Keramida Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date 1	PCE (µg/kg)	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	TPH-DRO (mg/kg)	BTEX (mg)	Sample Date 2	TPH-ERO (mg/kg)
1	04/18/07	BDL	BDL	160	NA	NA		NA
2	04/18/07	BDL	BDL	85	NA	NA		NA
3	04/18/07	BDL	BDL	220	NA	NA		NA
4	04/18/07	BDL	BDL	120	NA	NA		NA
5	04/18/07	BDL	BDL	210	NA	NA		NA
6	04/18/07	BDL	BDL	420	NA	NA		NA
7	04/18/07	BDL	BDL	350	NA	NA		NA
8	04/18/07	BDL	BDL	490	NA	NA		NA
9	04/19/07	BDL	BDL	510	NA	NA		NA
10	04/19/07	BDL	BDL	110	NA	NA		NA
11	04/19/07	BDL	BDL	450	NA	NA		NA
1	04/20/07	BDL	BDL	340	NA	NA		NA
2	04/20/07	BDL	BDL	560	NA	NA		NA
3	04/20/07	BDL	BDL	570	NA	NA		NA
4	04/20/07	BDL	BDL	280	NA	NA		NA
5	04/20/07	BDL	BDL	170	NA	NA		NA
6	04/20/07	BDL	BDL	90	NA	NA		NA
7	04/20/07	BDL	BDL	34	NA	NA		NA
1	04/19/07	BDL	BDL	170	NA	NA		NA
2	04/19/07	BDL	BDL	330	NA	NA		NA
3	04/20/07	BDL	BDL	190	NA	NA		NA
1	04/19/07	0.011	BDL	35	NA	NA		NA
7	04/20/07	0.0060	13	120	NA	NA		NA
1	04/23/07	BDL	BDL	280	NA	NA		NA
1	04/23/07	BDL	BDL	460	NA	NA		NA
1	04/23/07	BDL	BDL	1100	NA	NA		NA
1	04/23/07	BDL	BDL	170	NA	NA		NA
1	04/23/07	BDL	BDL	420	NA	NA		NA
1	04/23/07	BDL	BDL	71	NA	NA		NA
2	04/23/07	BDL	BDL	270	NA	NA		NA
1	04/23/07	BDL	BDL	860	NA	NA		NA
2	05/01/07	BDL	BDL	89	NA	NA		NA
3	05/01/07	BDL	BDL	100	NA	NA		NA
4	05/01/07	BDL	BDL	23	NA	NA		NA

**Table 2-3f**  
**Keramida Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date 1	PCE (µg/kg)	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	TPH-DRO (mg/kg)	BTEX (mg)	Sample Date 2	TPH-ERO (mg/kg)
1	04/23/07	BDL	BDL	250	NA	NA		NA
2	04/23/07	BDL	BDL	560	NA	NA		NA
3	04/23/07	BDL	BDL	470	NA	NA		NA
4	04/23/07	BDL	BDL	410	NA	NA		NA
<b>Riverside Golf Course</b>								
RSGC10-1	04/24/07	NA	BDL	74	NA	NA		NA
RSGC10-2	04/24/07	NA	BDL	77	NA	NA		NA
RSGC12-2-1	04/24/07	NA	BDL	270	NA	NA		NA
RSGC12-2-2	04/24/07	NA	14	140	NA	NA		NA
RSGC12-2-3	04/24/07	NA	BDL	73	NA	NA		NA
RSGC12-2-4	04/24/07	NA	BDL	290	NA	NA		NA
RSGC12-2-5	04/24/07	NA	BDL	94	NA	NA		NA
RSGC12-3SW	04/24/07	NA	BDL	73	NA	NA		NA
RSGC12-4N	04/24/07	NA	BDL	290	NA	NA		NA
RSGC12-5W	04/24/07	NA	BDL	94	NA	NA		NA
RSGC13-1E	04/24/07	NA	BDL	69	NA	NA		NA
RSGC13-2S	04/24/07	NA	BDL	75	NA	NA		NA
RSGC13-3N	04/24/07	NA	BDL	570	NA	NA		NA
RSGC13-4-1	04/24/07	NA	BDL	56	NA	NA		NA
<b>Coffin Golf Course</b>								
CGC11-1	05/01/07	NA	BDL	39	NA	NA		NA
CGC11-2	05/01/07	NA	BDL	51	NA	NA		NA
CGC11-3	05/01/07	NA	BDL	56	NA	NA		NA
CGC11-4	05/01/07	NA	BDL	27	NA	NA		NA
CGC11-5	05/01/07	NA	BDL	BDL	NA	NA		NA
CGC11-6	05/01/07	NA	BDL	130	NA	NA		NA
CGC11-7	05/01/07	NA	BDL	18	NA	NA		NA
CGC11-8	05/01/07	NA	BDL	54	NA	NA		NA
CGC11-9	05/01/07	NA	BDL	36	NA	NA		NA
CGC11-10	05/01/07	NA	BDL	26	NA	NA		NA
CGC11-11	05/01/07	NA	BDL	BDL	NA	NA		NA
CGC11-12	05/01/07	NA	BDL	BDL	NA	NA		NA
CGC11-13	05/01/07	NA	BDL	440	NA	NA		NA
CGC11-14	05/02/07	NA	BDL	71	NA	NA		NA
CGC11-15	05/02/07	NA	BDL	130	NA	NA		NA
CGC11-16	05/02/07	NA	BDL	32	NA	NA		NA
CGC11-17	05/02/07	NA	BDL	64	NA	NA		NA
CGC17-18	05/02/07	NA	BDL	BDL	NA	NA		NA
CGC10-19	05/02/07	NA	BDL	300	NA	NA		NA
CGC10-20	05/02/07	NA	BDL	47	NA	NA		NA
<b>Unknown Location</b>								
ET-1	04/24/07	NA	BDL	BDL	NA	NA		NA
EC-1	04/24/07	NA	BDL	13	NA	NA		NA
WC1-1	04/24/07	NA	BDL	15	NA	NA		NA
WC1-2	04/24/07	NA	BDL	27	NA	NA		NA
W2-1	04/24/07	NA	BDL	22	NA	NA		NA
W2-2	04/24/07	NA	BDL	74	NA	NA		NA

**Table 2-3f**  
**Keramida Historical Sampling Event Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Sample ID	Sample Date 1	PCE (µg/kg)	TPH-GRO (mg/kg)	TPH-ERO (mg/kg)	TPH-DRO (mg/kg)	BTEX (mg)	Sample Date 2	TPH-ERO (mg/kg)
<b>Product Analysis-Sewer</b>								
AB33305	--	17.1	<u>16437</u>	<u>38257</u>	NA	NA		NA
<b>Product Analysis-East Million</b>								
AB33306	--	14	<u>25824</u>	<u>41651</u>	NA	NA		NA
1	06/07/07	NA	NA	NA	NA	BDL		NA
2	06/07/07	NA	NA	NA	NA	BDL		NA
3	06/07/07	BDL	BDL	76	BDL	NA		NA

Notes:

Exceeds IDEM RISC TPH Residential Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent

Exceeds IDEM RISC TPH Industrial Soil Non-Default Closure Levels (Migration to Groundwater) - most stringent

--" - not available

mg - milligram

mg/kg - milligram per kilogram

µg/kg - microgram per kilogram

BDL - below detection limit

BTEX - benzene, toluene, ethylbenzene, xylene

ERO - extended range organic

GRO - gasoline range organic

ID - identification

NA - not analyzed

NL - not listed

PCE - tetrachloroethane

TPH - total petroleum hydrocarbon

**Table 3-1**  
**HazCat Sampling Results**  
**ESI Environmental, Inc.**  
**4910 West 86th Street**  
**Indianapolis, Marion County, Indiana**

Tank Location	Tank ID	Date	HazCat Performed	Notes		Additional Analysis	
				Possible Chlorines	Possible Metals	PCB	TCLP Metal
J	West	10/9/2010	x			x	x
J	East	10/9/2010	x			x	x
D	North	10/9/2010	x				
D	South	10/9-12/10	x	x	x	x	x
Tank - East of Building OO	--	10/8-12/10	x	x	x	x	x
F	F8	10/8-12/10	x	x	x	x	x
F	F9	10/8-12/10	x	x	x	x	x
F	F7	10/8-12/10	x	x	x	x	x
Q	52SP01B	10/8/2010	x	x	x		
BB	55TK12	10/8/2010	x				
BB	55TK13	10/8/2010	x				
BB	55TK14	10/8/2010	x				
BB	55TK15	10/8/2010	x				
Tanker - East of Building II	R5	10/9/2010	x				
Tanker- Southeast corner of property	411	10/9/2010	x				
Tanker- South corner of property	3344	10/9/2010	x				
Tanker- East of Building II	5	10/9/2010	x				
Tanker- South of MM	--	10/8/2010	x				
KK	--	10/8/2010	x				
K	6	10/8/2010	x				
Roll-off- Northeast of Building OO	4347	10/8/2010	x				
L	7	10/8/2010	x				
FF	21	10/8/2010	x				
FF	22	10/8/2010	x				
FF	23	10/8/2010	x				
FF	24	10/8/2010	x				
EE	A	10/8/2010	x				
EE	B	10/8/2010	x				
DD	--	10/8/2010	x				
GG	41	10/8/2010	x				
GG	46	10/8/2010	x		x		
GG	42	10/8/2010	x		x		
GG	45	10/8/2010	x		x		
Y	1	10/8/2010	x				
Y	2	10/8/2010	x				
R	--	10/8/2010	x				
AA	--	10/8/2010	x				
H	--	10/8/2010	x				

Notes:

HazCat - hazard categorization

ID - identification

PCB - polychlorinated biphenyls

TCLP - toxicity characteristic leaching procedure

---

## **APPENDIX A**

### **PHOTOGRAPHIC DOCUMENTATION**

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**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 1

**Direction:** Northwest

**Subject:** Oil Storage Tank (designated "A" on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 2

**Direction:** Southwest

**Subject:** Secondary Containment for Oil Storage Tank (designated "A" on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti





**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 3

**Direction:** North

**Subject:** Unloading Building (designated "II" on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 4

**Direction:** Northwest

**Subject:** Primary Separator (designated "D" on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 5

**Direction:** Northwest

**Subject:** Off Spec Oil Storage Frac Tanks (designated “F” on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 6

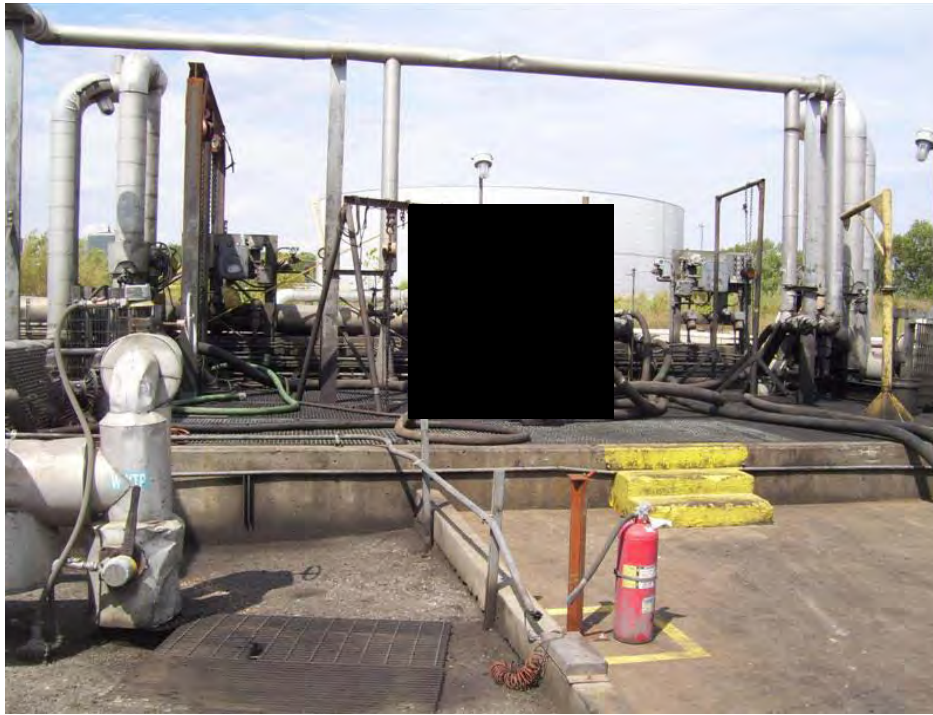
**Direction:** Northeast

**Subject:** Auxiliary Separator (designated “G” on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti





**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 7

**Direction:** North

**Subject:** Wastewater Containment Area (located between designations “J” and “I” on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 8

**Direction:** Southwest

**Subject:** API Oil Water Separator (designated “Q” on Figure 2-1) with Large Air Stripper (designated “KK” on Figure 2-1) beyond

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 9

**Direction:** Southeast

**Subject:** Dehydration Building (designated “NN” on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 10

**Direction:** East

**Subject:** Off Spec Oil Storage Tanks (designated “GG” on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti





**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 11

**Direction:** Southeast

**Subject:** API Oil Water Separator (designated “Q” on Figure 2-1)

**Date:** 9/1/10

**Photographer:** Marcus Muccianti



**Site:** ESI Environmental, Inc. Site Assessment

**Photograph No.:** 12

**Direction:** East

**Subject:** Oil Storage Tanks (designated “BB” on Figure 2-1) with Off Spec Oil Storage Tanks (designated “GG” on Figure 2-1) beyond

**Date:** 9/1/10

**Photographer:** Marcus Muccianti

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**APPENDIX B**  
**HAZCAT SAMPLING LOGS**

---

ATTACHMENT A

Container No. H  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ES1 Location: Indy Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: \_\_\_\_\_ Steel \_\_\_\_\_ Poly \_\_\_\_\_ Fiber \_\_\_\_\_ Poly-lined Open-top \_\_\_\_\_ Closed-top \_\_\_\_\_ Other: \_\_\_\_\_  
Total Volume: \_\_\_\_\_ 85 gal \_\_\_\_\_ 65 gal \_\_\_\_\_ 30 gal \_\_\_\_\_ 10 gal \_\_\_\_\_ 5 gal \_\_\_\_\_ Other: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_ 100% \_\_\_\_\_ 75% \_\_\_\_\_ 50% \_\_\_\_\_ 25% \_\_\_\_\_ Empty \_\_\_\_\_  
Field Screening: \_\_\_\_\_ OVA/HNu \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: \_\_\_\_\_ Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	lt grey	CLR	CLR	
Middle				
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	S	IH	—	8	—	—	Not test	—	—	—
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10/8/10



ATTACHMENT A

Container No. 11A Scrap  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Fudy Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Tank: \_\_\_\_\_  
Construction: Steel \_\_\_\_\_ Poly-lined Open-top \_\_\_\_\_ Closed-top Other: \_\_\_\_\_  
Total Volume: 85 gal \_\_\_\_\_ 10gal \_\_\_\_\_ 5gal \_\_\_\_\_ Other: \_\_\_\_\_  
Waste Volume: 100% \_\_\_\_\_ Empty \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	DK BROWN	OPA	LIQ	
Middle				
Bottom				

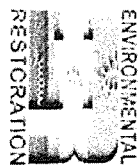
Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxld.	CN	Sulf.	Cl	Flam.
Top	5			5						
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10



## ATTACHMENT A

Container No. R  
Waste Stream \_\_\_\_\_DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATIONSite Name: ESI Location: Indy Samplers: RDate: 10-8-10 Time: \_\_\_\_\_

## DRUM/CONTAINER INFORMATION (circle all that apply)

Type: Drum  
Construction: Steel  
Total Volume: 85 gal  
Waste Volume: 65 gal  
Field Screening: 100%  
Condition: OVA/HNu

Vat Polv 65 gal  
Fiber 30 gal  
Poly-lined Open-top 10gal 5gal Other: 25% Empty  
Closed-top Other: \_\_\_\_\_  
Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

Pit 50%  
Fair Good

## DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPA	LIA	
Middle				
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

## Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	6	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10

# ATTACHMENT A

Container No. Y-1  
Waste Stream \_\_\_\_\_

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Site Name: ESI Location: Endy Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly-lined Open-top: \_\_\_\_\_  
Closed-top Other: \_\_\_\_\_  
Other: \_\_\_\_\_  
Red. Meter \_\_\_\_\_  
pH \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_  
%O<sub>2</sub>: \_\_\_\_\_  
Good: \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	AMBER	OPQ	LIQ	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	5	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-8-10

ATTACHMENT A

Container No. X 5474  
Waste Stream                     

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: E S 1 Location: Tudy Samplers: KL  
Date: 10-8-10 Time:                     

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: Drum Construction: Steel Total Volume: 85 gal Waste Volume: 100% Field Screening: POOR  
Vat: Polv 65 gal 75% Pit: Fiber 30 gal 50% Tank: Poly-lined Open-top: 10gal 5gal Empty: 25% Closed-top: Other:                       
Condition: Poor Fair:                      Good:                      %O<sub>2</sub>:                      Red. Meter:                      pH:                     

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>dk brown</u>	<u>OPQ</u>	<u>SDG</u>	<u>100</u>
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>PS</u>	<u>IH</u>	<u>-</u>	<u>7</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. J WEST  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Indy Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly 65 gal 75%  
Steel 85 gal 100%  
OVA/HNu  
Poor

Pit: \_\_\_\_\_  
Fiber 30 gal 50%  
Poly-lined Open-top 10 gal 25%  
Closed-top Other: \_\_\_\_\_  
Other \_\_\_\_\_  
Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

Tank: \_\_\_\_\_  
Poly-lined Open-top 10 gal 25%  
Closed-top Other: \_\_\_\_\_  
Other \_\_\_\_\_  
Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

Good Fair

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	A			
Middle				
Bottom				

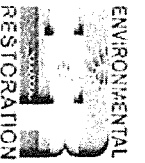
Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	LL	S	-	5	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10/9/10



# ATTACHMENT A

J EAST

Container No. 91  
Waste Stream           

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Site Name: ES1 Location: #1 Inddy Samplers: Rg

Date: 10-8-10 Time:           

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: Drum Vat            Pit            Tank             
Construction: Steel Polv 65 gal Fiber 30 gal Poly-lined Open-top            Closed-top Other:             
Total Volume: 85 gal 100% 75% 50%             
Waste Volume: 100% OVA/HNU            %O<sub>2</sub>            Empty            Other             
Field Screening: Poor Fair            Good            Red. Meter            pH             
Condition:           

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>BLACK</u>	<u>OPQ</u>	<u>LIQ</u>	<u>          </u>
Middle	<u>BLACK</u>	<u>OPQ</u>	<u>          </u>	<u>          </u>
Bottom	<u>BLACK</u>	<u>OPQ</u>	<u>LIQ</u>	<u>          </u>

High solids

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>IL</u>	<u>S</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle	<u>IL</u>	<u>S</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Bottom	<u>IL</u>	<u>S</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10

ATTACHMENT A

Container No. 667 Site 46 Middle  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ES1 Location: Indy Samplers: RC  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly-lined Open-top: \_\_\_\_\_  
Closed-top Other: \_\_\_\_\_  
Other: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_  
%O<sub>2</sub>: \_\_\_\_\_  
Empty: \_\_\_\_\_  
Good: \_\_\_\_\_  
Fair: \_\_\_\_\_  
Poor: \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>Black</u>	<u>OPQ</u>	<u>Liq</u>	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>IL</u>	<u>S</u>	<u>-</u>	<u>8</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10



ATTACHMENT A

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Container No. 676 Southwest  
Waste Stream                     

Site Name: ESI

Location: Indy

Samplers: R

Date: 10/29/10

Time:                     

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: Drum      Vat Polv      Pit Fiber      Tank Poly-lined      Open-top                           Closed-top Other:                       
Construction: Steel      85 gal      65 gal      30 gal      10gal      5gal      Other:                       
Total Volume: 85 gal      100%      75%      50%      25%      Empty      Other:                       
Waste Volume: 100%      OVA/HNu                           %O<sub>2</sub>                           Red. Meter                           pH                       
Field Screening:                           Fair      Good                          

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPA	CLR	10
Middle	TAN	CLR	CLR	20
Bottom	Black	OPA	SDG	70

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	-	-	-	-	-	-	-
Middle	S	IH	-	6	-	-	-	-	-	-
Bottom	IH	S	-	-	-	-	-	-	-	-

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier

Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction

Test Results: + = Positive Result - = Negative Result

Analyst: Luke W

Date: 10/29/10

ATTACHMENT A

Container No. 66 North Middle  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Indy Samplers: Rg  
Date: 10-20-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly: \_\_\_\_\_  
65 gal: \_\_\_\_\_  
75%: \_\_\_\_\_  
OVA/HNu: \_\_\_\_\_  
Poor: \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_  
Good: \_\_\_\_\_

Tank: \_\_\_\_\_  
Poly-lined: \_\_\_\_\_  
Open-top: \_\_\_\_\_  
10 gal: \_\_\_\_\_  
5 gal: \_\_\_\_\_  
25% Empty: \_\_\_\_\_  
Other: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

Closed-top: \_\_\_\_\_  
Other: \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	OPA	LIQ	10
Middle				
Bottom	Black	CLR	LIQ	90

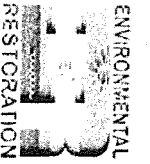
Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	TL	S	-	-	-	-	-	-	-	-
Middle										
Bottom	S	TH	-	6	-	-	-	-	-	-

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10/29/10



ATTACHMENT A

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Container No. GG 451 North  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Judy Samplers: RL  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_  
Drum Steel 85 gal 100% OVA/HNu \_\_\_\_\_  
Vat Poly 65 gal 75% \_\_\_\_\_  
Pit Fiber 30 gal 50% \_\_\_\_\_  
Tank Poly-lined Open-top 10gal 5gal Empty \_\_\_\_\_  
Closed-top Other: \_\_\_\_\_  
Fair Good %O<sub>2</sub> \_\_\_\_\_ Red Meter \_\_\_\_\_ pH \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPA	Liq	
Middle				
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	6	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Lyke W

Date: 10/9/10

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. 28  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Indy Samplers: RS  
Date: 10/8/10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly-lined \_\_\_\_\_  
Open-top \_\_\_\_\_  
Closed-top \_\_\_\_\_  
Other: \_\_\_\_\_  
Empty \_\_\_\_\_  
Other: \_\_\_\_\_  
Red. Meter \_\_\_\_\_  
pH \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber \_\_\_\_\_  
30 gal \_\_\_\_\_  
50% \_\_\_\_\_  
Good \_\_\_\_\_  
Fair \_\_\_\_\_  
Poor \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	lt khaki	cloudy	LIQ	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	S	IH	-	7	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Lake W Date: 10/9/10

ATTACHMENT A

Container No. SAND HUTE R 4  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Indy Samplers: RC  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel \_\_\_\_\_ Fiber \_\_\_\_\_ Poly-lined \_\_\_\_\_ Open-top \_\_\_\_\_ Closed-top \_\_\_\_\_ Other: \_\_\_\_\_  
Total Volume: 85 gal \_\_\_\_\_ 65 gal \_\_\_\_\_ 30 gal \_\_\_\_\_  
Waste Volume: 100% \_\_\_\_\_ 75% \_\_\_\_\_ 50% \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Empty \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	GRAY	CLDY	LIQ	
Middle				
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	S	IH	-	7	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke G Date: 10/9/10

ATTACHMENT A

Container No. ADSLERB  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Indy Samplers: 26  
Date: 10/8/10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly 65 gal 75%  
Fiber 30 gal 50%  
Pit \_\_\_\_\_  
Closed-top Other: \_\_\_\_\_  
Other \_\_\_\_\_  
Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

Drum: \_\_\_\_\_  
Steel 85 gal 100%  
OVA/HNu \_\_\_\_\_  
Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>tan</u>	<u>CDY</u>	<u>LIQ</u>	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>S</u>	<u>+</u>	<u>+</u>	<u>7</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Jake W Date: 10/9/10

548PC000000 500100

ATTACHMENT A

Container No. 21  
Waste Stream                     

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Italy Samplers: RA  
Date: 10-8-10 Time:                     

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: Drum Construction: Steel Vat Polv Pit Fiber Tank Poly-lined Open-top Closed-top Other:                       
Total Volume: 85 gal 65 gal 75% 30 gal 50% 10gal 5gal Other:                       
Waste Volume: 100% 25% Empty                      Red. Meter                      pH                       
Field Screening: OVA/HNu Fair Good %O<sub>2</sub>                       
Condition: Poor

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>Black</u>	<u>OPA</u>	<u>SDG</u>	<u>50</u>
Middle	<u>Gray</u>	<u>CLR</u>	<u>LIQ</u>	<u>50</u>
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>IL</u>	<u>PS (H)</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle	<u>S</u>	<u>IH</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10/9/2010



ATTACHMENT A

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Container No. 22  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: INDY Samplers: RC  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Poly-lined Open-top \_\_\_\_\_ Closed-top Other: \_\_\_\_\_  
10gal 5gal Other: \_\_\_\_\_  
25% Empty \_\_\_\_\_ Other \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

Drum \_\_\_\_\_ Steel \_\_\_\_\_ Fiber \_\_\_\_\_  
85 gal 30 gal 50%  
100%  
OVA/HNu \_\_\_\_\_  
Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	black	OPQ	LIA	
Middle				
Bottom				

SUSPENDED SOLID

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxld.	CN	Sulf.	Cl	Flam.
Top	S	IH	—	7	—	—	—	—	—	—
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10/9/10



ATTACHMENT A

Container No. 23  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Indy Samplers: RL  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel 85 gal Poly 65 gal Fiber 30 gal Poly-lined Open-top Closed-top Other: \_\_\_\_\_  
Total Volume: 100% 75% 50%  
Waste Volume: \_\_\_\_\_  
Field Screening: OVA/HNU \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Pressure	OPA	Liq	20
Middle	Tan	CLR	Liq	80
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-							C
Middle	S	IH	-	5						
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. 24  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Early Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Tank: \_\_\_\_\_  
Construction: Steel \_\_\_\_\_ Poly-lined Open-top \_\_\_\_\_ Closed-top Other: \_\_\_\_\_  
Total Volume: 85 gal \_\_\_\_\_ 10gal \_\_\_\_\_ 5gal \_\_\_\_\_ Other: \_\_\_\_\_  
Waste Volume: 100% \_\_\_\_\_ Empty \_\_\_\_\_ 25% \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	OPQ	SDG	100
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	S	IH	-	7	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10/9/10



# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. (C) 07  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Indy Samplers: RA  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel 85 gal Poly 65 gal Fiber 30 gal Closed-top Other: \_\_\_\_\_  
Total Volume: 85 gal 75% 50%  
Waste Volume: 100%  
Field Screening: OVA/HNu \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Brown	OPG	Liquid	
Middle				
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	PS(L)	PS(H)	-	5	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke CC

Date: 10/8/2010

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. 50166 8347  
Waste Stream \_\_\_\_\_

Site Name: ESZ Location: Tweedy Samplers: RL  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat \_\_\_\_\_  
Poly 65 gal 75%  
Steel 85 gal 100%  
OVA/HINu \_\_\_\_\_  
Poor \_\_\_\_\_

Pit \_\_\_\_\_  
Fiber 30 gal 50%  
Poly-lined Open-top 10 gal 25% Empty  
Closed-top Other: \_\_\_\_\_  
Other \_\_\_\_\_  
Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

%O<sub>2</sub> \_\_\_\_\_  
Good \_\_\_\_\_  
Fair \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>Dark Gray</u>	<u>opaque</u>	<u>SL</u>	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>PS</u>	<u>IH</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle										
Bottom										

*Map have  
note 12*

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10/8/10

ATTACHMENT A

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Container No. (K) 6  
Waste Stream \_\_\_\_\_

Site Name: ES1 Location: Trudy Samplers: RC  
Date: 10-8-16 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel 85 gal Poly 65 gal Fiber 30 gal Poly-lined Open-top \_\_\_\_\_ Closed-top \_\_\_\_\_  
Total Volume: 85 gal 100% 5gal Other: \_\_\_\_\_  
Waste Volume: 100% 75% 50% 25% Empty \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPQ	LIQ / SDG	10 / 90
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<del>PS (L)</del>	PS (H)	-	5	-	-	-	-	-	-
Middle										
Bottom	PS (L)	PS (H)		5	-	-	-	-	-	-

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-8-16

ATTACHMENT A

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Container No. KK  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Indy Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly-lined \_\_\_\_\_  
Open-top \_\_\_\_\_  
Closed-top \_\_\_\_\_  
Other: \_\_\_\_\_  
Empty \_\_\_\_\_  
Other \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_  
Red. Meter \_\_\_\_\_  
pH \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber \_\_\_\_\_  
30 gal \_\_\_\_\_  
50% \_\_\_\_\_  
Good \_\_\_\_\_  
Fair \_\_\_\_\_  
Poor \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	White (x1)	CDY	LIQ	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	S	IH	-	7	-	-	N/A	N/A	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke CW Date: 10-8-10





# ATTACHMENT A

Container No. Looking Toward  
Waste Stream \_\_\_\_\_

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Site Name: IS1 Location: Lady Samplers: Rodney Cice  
Date: 10-8-2010 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: Drum Vat Pit Tank \_\_\_\_\_  
Construction: Steel Polv 65 gal Fiber 30 gal Closed-top Other: \_\_\_\_\_  
Total Volume: 85 gal 100% 50% 25% Empty \_\_\_\_\_  
Waste Volume: 100% OVA/HNu \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: Poor Fair Good %O<sub>2</sub> \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>lt grn</u>	<u>cl</u>	<u>LIQ</u>	
Middle				
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>S</u>	<u>IH</u>	<u>-</u>	<u>6.5-7</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: iw Date: 10/8/10

ATTACHMENT A

Container No. Tanker 5  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: E 5 I Location: Indy Samplers: KB  
Date: 10-9-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly: \_\_\_\_\_  
65 gal: \_\_\_\_\_  
75%: \_\_\_\_\_

Drum: \_\_\_\_\_  
Steel: \_\_\_\_\_  
85 gal: \_\_\_\_\_  
100%: \_\_\_\_\_  
OVA/HNu: \_\_\_\_\_  
Poor: \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_

Tank: \_\_\_\_\_  
Poly-lined: \_\_\_\_\_  
Open-top: \_\_\_\_\_  
10gal: \_\_\_\_\_  
5gal: \_\_\_\_\_  
25% Empty: \_\_\_\_\_  
Closed-top: \_\_\_\_\_  
Other: \_\_\_\_\_  
Other: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	OPA	LIG	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S		5						
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10

ATTACHMENT A

Container No. Teaker 3344  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Lady Samplers: KB  
Date: 10-9-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: \_\_\_\_\_ Steel \_\_\_\_\_ Polv \_\_\_\_\_ Fiber \_\_\_\_\_ Poly-lined Open-top \_\_\_\_\_ Closed-top Other \_\_\_\_\_  
Total Volume: \_\_\_\_\_ 85 gal \_\_\_\_\_ 65 gal \_\_\_\_\_ 30 gal \_\_\_\_\_ 10gal 5gal Other \_\_\_\_\_  
Waste Volume: \_\_\_\_\_ 100% \_\_\_\_\_ 75% \_\_\_\_\_ 50% \_\_\_\_\_ 25% Empty \_\_\_\_\_  
Field Screening: \_\_\_\_\_ OVA/HNu \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: \_\_\_\_\_ Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>Amber</u>	<u>CDX</u>	<u>LIQ</u>	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>IL</u>	<u>PS</u>	<u>-</u>	<u>5</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. Tanker 411  
Waste Stream \_\_\_\_\_

Site Name: CSI Location: Indy Samplers: KB  
Date: 10-9-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat \_\_\_\_\_  
Poly 65 gal 75%  
Fiber 30 gal 50%  
Pit \_\_\_\_\_  
Poly-lined Open-top 10 gal 5 gal 25% Empty  
Closed-top Other: \_\_\_\_\_  
Other \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

Drum \_\_\_\_\_  
Steel 85 gal 100%  
OVA/HNu \_\_\_\_\_  
Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	OPQ	LIQ	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	7	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10

ATTACHMENT A

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Container No. Tanker 35  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Sandy Samplers: KB  
Date: 10-9-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel 85 gal 65 gal 30 gal 10 gal 5 gal Other: \_\_\_\_\_  
Total Volume: 100% 75% 50% 25% Empty \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: OVA/HNU \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	black	OPQ	LIQ	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Fiam.
Top	IL	S	-	5	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W

Date: 10-9-10

ATTACHMENT A

Container No. Superior  
Waste Stream D North

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Indy Samplers: KB  
Date: 10-9-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: \_\_\_\_\_ Poly-lined \_\_\_\_\_ Open-top \_\_\_\_\_ Closed-top \_\_\_\_\_ Other: \_\_\_\_\_  
Total Volume: 85 gal \_\_\_\_\_ 10gal \_\_\_\_\_ 5gal \_\_\_\_\_  
Waste Volume: 100% \_\_\_\_\_ Empty \_\_\_\_\_  
Field Screening: OVA/HINu \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPQ	Liq	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxld.	CN	Sulf.	Cl	Flam.
Top	IL	S		6						
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Lake CW Date: 10-9-10

ATTACHMENT A

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Container No. BB-15  
Waste Stream \_\_\_\_\_

Site Name: ES1 Location: Idy Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel \_\_\_\_\_ Fiber \_\_\_\_\_ Poly-lined \_\_\_\_\_ Open-top \_\_\_\_\_ Closed-top \_\_\_\_\_  
Total Volume: 85 gal \_\_\_\_\_ 65 gal \_\_\_\_\_ 30 gal \_\_\_\_\_ 10 gal \_\_\_\_\_ 5 gal \_\_\_\_\_ Other \_\_\_\_\_  
Waste Volume: 100% \_\_\_\_\_ 75% \_\_\_\_\_ 50% \_\_\_\_\_ 25% \_\_\_\_\_ Empty \_\_\_\_\_  
Field Screening: OVA/HNU \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	OPA	SDG	5
Middle				
Bottom	TRACE	CLR	LIO	85

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	6	-	-	-	-	-	-
Middle										
Bottom	S	IH	-	3	-	-	-	-	-	-

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: hoke w Date: 10-8-10



ATTACHMENT A

Container No. BB-14  
Waste Stream \_\_\_\_\_

DRUM/CONTAINER SAMPLING LOG  
GENERAL INFORMATION

Site Name: ESI Location: Indy Samplers: RG  
Date: 10-25-10 Time: \_\_\_\_\_

DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly: \_\_\_\_\_  
65 gal: \_\_\_\_\_  
75%: \_\_\_\_\_

Drum: \_\_\_\_\_  
Steel: \_\_\_\_\_  
85 gal: \_\_\_\_\_  
100%: \_\_\_\_\_  
OVA/HNu: \_\_\_\_\_  
Poor: \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_

Tank: \_\_\_\_\_  
Poly-lined: \_\_\_\_\_  
Open-top: \_\_\_\_\_  
10gal: \_\_\_\_\_  
5gal: \_\_\_\_\_  
25% Empty: \_\_\_\_\_  
Closed-top: \_\_\_\_\_  
Other: \_\_\_\_\_  
%O<sub>2</sub>: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	OPQ	LIQ	5%
Middle	TAN	CDY	LIQ	5%
Bottom				

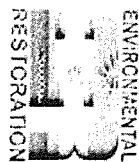
Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	7	-	-	-	-	-	-
Middle										
Bottom	S	IH	-	7	-	-	-	-	-	-

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10



# ATTACHMENT A

Container No. BB-13  
Waste Stream \_\_\_\_\_

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Site Name: ESI Location: Tracy Samplers: RC  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel 85 gal Poly 65 gal Fiber 30 gal Poly-lined Open-top Closed-top Other: \_\_\_\_\_  
Total Volume: 100% 75% 50%  
Waste Volume: \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red Meter \_\_\_\_\_ pH \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	CLDY	LIQ	
Middle				
Bottom				

Abbreviations: OPA = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	S	IH	-	6	-	-	-	-	-	-
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luka W

Date: 10-9-10

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. BB-12  
Waste Stream \_\_\_\_\_

Site Name: ZSI Location: Early Samplers: R4  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly: \_\_\_\_\_  
65 gal: \_\_\_\_\_  
75%: \_\_\_\_\_

Pit: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_

Tank: \_\_\_\_\_  
Poly-lined Open-top: \_\_\_\_\_  
10gal: \_\_\_\_\_  
5gal: \_\_\_\_\_  
25% Empty: \_\_\_\_\_  
Other: \_\_\_\_\_  
%O<sub>2</sub>: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

Good: \_\_\_\_\_  
Fair: \_\_\_\_\_  
Poor: \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	AMBER	OPQ	LIQ	
Middle				
Bottom	TAN	CDY CLR	LIQ	

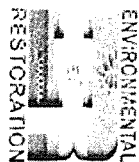
Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S		6						
Middle										
Bottom	S	IH		6						

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-8-10



# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. 2  
Waste Stream \_\_\_\_\_

Site Name: \_\_\_\_\_ Location: \_\_\_\_\_ Samplers: RG  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel \_\_\_\_\_ Polv \_\_\_\_\_ Fiber \_\_\_\_\_ Poly-lined \_\_\_\_\_ Open-top \_\_\_\_\_ Closed-top \_\_\_\_\_ Other: \_\_\_\_\_  
Total Volume: 85 gal \_\_\_\_\_ 65 gal \_\_\_\_\_ 30 gal \_\_\_\_\_ 10gal \_\_\_\_\_ 5gal \_\_\_\_\_ Other: \_\_\_\_\_  
Waste Volume: 100% \_\_\_\_\_ 75% \_\_\_\_\_ 50% \_\_\_\_\_ 25% \_\_\_\_\_ Empty \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	BLACK	OPQ	Liq	30-100
Middle				
Bottom	CLAY	CLDY		

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S							+	
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: \_\_\_\_\_

Date: \_\_\_\_\_

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. Free Tank 7  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: July Samplers: RG  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat \_\_\_\_\_  
Poly 65 gal  
75%  
Steel 85 gal  
100%  
OVA/HNu  
Poor

Pit \_\_\_\_\_  
Fiber 30 gal  
50%  
Poly-lined Open-top  
10 gal 5 gal Other: \_\_\_\_\_  
25% Empty Other \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

Tank \_\_\_\_\_  
Closed-top Other: \_\_\_\_\_

Good Fair

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	<u>dk. brn</u>	<u>OPQ</u>	<u>LIQ</u>	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	<u>IL</u>	<u>PS (H)</u>	<u>-</u>	<u>5</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W Date: 10-9-10



# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. Free Tank 9  
Waste Stream \_\_\_\_\_

Site Name: ESI Location: Isle Samplers: RC  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Drum \_\_\_\_\_ Vat \_\_\_\_\_ Pit \_\_\_\_\_ Tank \_\_\_\_\_  
Construction: Steel \_\_\_\_\_ Poly \_\_\_\_\_ Fiber \_\_\_\_\_ Poly-lined \_\_\_\_\_ Open-top \_\_\_\_\_ Closed-top \_\_\_\_\_ Other: \_\_\_\_\_  
Total Volume: 85 gal \_\_\_\_\_ 65 gal \_\_\_\_\_ 30 gal \_\_\_\_\_ 10 gal \_\_\_\_\_ 5 gal \_\_\_\_\_ Other: \_\_\_\_\_  
Waste Volume: 100% \_\_\_\_\_ 75% \_\_\_\_\_ 50% \_\_\_\_\_ 25% \_\_\_\_\_ Empty \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_  
%O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPQ	Liq	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	SL	S	-	6	-	-	-	-	+	2
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke W

Date: 10-8-10

SAMPLED SOLDS

# ATTACHMENT A

Container No. Free Tank 8  
Waste Stream \_\_\_\_\_

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Site Name: ESI Location: Incl. Samplers: RG  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_ Tank: \_\_\_\_\_  
Construction: \_\_\_\_\_ Poly-lined Open-top \_\_\_\_\_ Closed-top Other: \_\_\_\_\_  
Total Volume: 85 gal 10gal 5gal \_\_\_\_\_  
Waste Volume: 100% Empty \_\_\_\_\_ Other \_\_\_\_\_  
Field Screening: OVA/HNu \_\_\_\_\_ %O<sub>2</sub> \_\_\_\_\_ Red. Meter \_\_\_\_\_ pH \_\_\_\_\_  
Condition: Poor \_\_\_\_\_ Fair \_\_\_\_\_ Good \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPK	Liq	
Middle				
Bottom				

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S		6					+	
Middle										
Bottom										

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Luke Date: 10-9-10





# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. Transfer Tank  
Waste Stream \_\_\_\_\_

Site Name: ES1 Location: Judy Samplers: RG  
Date: 10-8-10 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_  
Drum: \_\_\_\_\_  
Steel: \_\_\_\_\_  
85 gal: \_\_\_\_\_  
100%: \_\_\_\_\_  
OVA/HNU: \_\_\_\_\_  
Poor: \_\_\_\_\_  
Fair: \_\_\_\_\_  
Good: \_\_\_\_\_  
Vat: \_\_\_\_\_  
Polv: \_\_\_\_\_  
65 gal: \_\_\_\_\_  
75%: \_\_\_\_\_  
Pit: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_  
Tank: \_\_\_\_\_  
Poly-lined: \_\_\_\_\_  
Open-top: \_\_\_\_\_  
Closed-top: \_\_\_\_\_  
Other: \_\_\_\_\_  
10gal: \_\_\_\_\_  
5gal: \_\_\_\_\_  
Empty: \_\_\_\_\_  
25%: \_\_\_\_\_  
%O<sub>2</sub>: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	THO	CDY	Liq	20
Middle	WALC			
Bottom			Sol	10

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex Sol.	React.	pH	Per.	Oxd.	CN	Sulf.	Cl	Fiam.
Top	S	IH	-	4	-	-	-	-	-	-
Middle										
Bottom	IH	S	-	4	-	-	-	-	+	-

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: L. H. C. C.

Date: 10-9-10

# ATTACHMENT A

## DRUM/CONTAINER SAMPLING LOG GENERAL INFORMATION

Container No. 504th  
Waste Stream \_\_\_\_\_

Site Name: E51 Location: 204 Samplers: KB  
Date: 10-9-2010 Time: \_\_\_\_\_

### DRUM/CONTAINER INFORMATION (circle all that apply)

Type: \_\_\_\_\_  
Construction: \_\_\_\_\_  
Total Volume: \_\_\_\_\_  
Waste Volume: \_\_\_\_\_  
Field Screening: \_\_\_\_\_  
Condition: \_\_\_\_\_

Vat: \_\_\_\_\_  
Poly: \_\_\_\_\_  
Fiber: \_\_\_\_\_  
30 gal: \_\_\_\_\_  
50%: \_\_\_\_\_  
75%: \_\_\_\_\_  
100%: \_\_\_\_\_  
OVA/HNu: \_\_\_\_\_  
Poor: \_\_\_\_\_

Pit: \_\_\_\_\_  
Poly-lined: \_\_\_\_\_  
Open-top: \_\_\_\_\_  
10 gal: \_\_\_\_\_  
25%: \_\_\_\_\_  
5 gal: \_\_\_\_\_  
Empty: \_\_\_\_\_  
Other: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

Closed-top: \_\_\_\_\_  
Other: \_\_\_\_\_  
Red. Meter: \_\_\_\_\_  
pH: \_\_\_\_\_

Fair: \_\_\_\_\_  
Good: \_\_\_\_\_

### DRUM/CONTAINER CONTENTS

Layer	Color	Clarity	Physical State	% of Total Volume
Top	Black	OPQ	LIQ	15
Middle				
Bottom	Black	CLR	LIQ	85

Abbreviations: OPQ = Opaque CLR = Clear CDY = Cloudy LIQ = Liquid SOL = Solid SDG = Sludge

### Hazard Categorization Testing Results

Layer	Water Sol.	Hex. Sol.	React.	pH	Per.	Oxid.	CN	Sulf.	Cl	Flam.
Top	IL	S	-	6	-	-	-	-	+	-
Middle										
Bottom	S	IH	-	6	-	-	-	-	+	-

Solubility Abbreviations: S = Soluble I = Insoluble PS = Partially Soluble IL = Insoluble, Lighter IH = Insoluble, Heavier  
Reactivity Abbreviations: A = Air Reactive W = Water Reactive N = No Reaction  
Test Results: + = Positive Result - = Negative Result

Analyst: Eric Luke Date: 10-9-10

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**APPENDIX C**  
**LABORATORY ANALYTICAL RESULTS**

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October 21, 2010

Mr. Richie Byrd  
Environmental Restoration, LLC  
2750 Contant Comment Place  
Louisville, KY 40299

RE: Project: ESI Indpls / EE5-47  
Pace Project No.: 5042370

Dear Mr. Byrd:

Enclosed are the analytical results for sample(s) received by the laboratory on October 12, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mick Mayse for  
Kenneth Hunt  
kenneth.hunt@pacelabs.com  
Project Manager

Illinois/NELAC Certification #: 100418

Indiana Certification #: C-49-06

Kansas Certification #: E-10247

Kentucky Certification #: 0042

Louisiana Certification #: 04076

Ohio VAP: CL0065

Pennsylvania: 68-00791

West Virginia Certification #: 330

Enclosures

## REPORT OF LABORATORY ANALYSIS

Page 1 of 10

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## SAMPLE SUMMARY

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5042370001	ESI D SOUTH 10-12	Non Aqueous	10/12/10 14:30	10/12/10 16:15
5042370002	ESI TRANS TANK 10-12	Non Aqueous	10/12/10 14:05	10/12/10 16:15
5042370003	ESI FRAC 7 10-12	Non Aqueous	10/12/10 15:00	10/12/10 16:15
5042370004	ESI FRAC 8 10-12	Non Aqueous	10/12/10 15:15	10/12/10 16:15
5042370005	ESI FRAC 9 10-12	Non Aqueous	10/12/10 15:30	10/12/10 16:15

## REPORT OF LABORATORY ANALYSIS

Page 2 of 10

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## SAMPLE ANALYTE COUNT

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
5042370001	ESI D SOUTH 10-12	EPA 8082	LKC	8	PASI-I
5042370002	ESI TRANS TANK 10-12	EPA 8082	LKC	8	PASI-I
5042370003	ESI FRAC 7 10-12	EPA 8082	LKC	8	PASI-I
5042370004	ESI FRAC 8 10-12	EPA 8082	LKC	8	PASI-I
5042370005	ESI FRAC 9 10-12	EPA 8082	LKC	8	PASI-I

## REPORT OF LABORATORY ANALYSIS

Page 3 of 10

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## ANALYTICAL RESULTS

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

**Sample:** ESI D SOUTH 10-12      **Lab ID:** 5042370001      Collected: 10/12/10 14:30      Received: 10/12/10 16:15      Matrix: Non Aqueous Liquid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>								
Analytical Method: EPA 8082 Preparation Method: EPA 3580								
PCB-1016 (Aroclor 1016)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:48	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	mg/kg	40.0	20	10/14/10 09:45	10/19/10 14:48	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:48	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:48	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:48	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:48	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:48	11096-82-5	
Tetrachloro-m-xylene (S)	0 %		55-133	20	10/14/10 09:45	10/19/10 14:48	877-09-8	S4



## ANALYTICAL RESULTS

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

**Sample:** ESI TRANS TANK 10-12    **Lab ID:** 5042370002    Collected: 10/12/10 14:05    Received: 10/12/10 16:15    Matrix: Non Aqueous Liquid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>								
Analytical Method: EPA 8082 Preparation Method: EPA 3580								
PCB-1016 (Aroclor 1016)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:59	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	mg/kg	40.0	20	10/14/10 09:45	10/19/10 14:59	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:59	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:59	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:59	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:59	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 14:59	11096-82-5	
Tetrachloro-m-xylene (S)	0 %		55-133	20	10/14/10 09:45	10/19/10 14:59	877-09-8	S4

## ANALYTICAL RESULTS

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

**Sample:** ESI FRAC 7 10-12      **Lab ID:** 5042370003      Collected: 10/12/10 15:00      Received: 10/12/10 16:15      Matrix: Non Aqueous Liquid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>								
Analytical Method: EPA 8082 Preparation Method: EPA 3580								
PCB-1016 (Aroclor 1016)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:11	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	mg/kg	40.0	20	10/14/10 09:45	10/19/10 15:11	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:11	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:11	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:11	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:11	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:11	11096-82-5	
Tetrachloro-m-xylene (S)	0 %		55-133	20	10/14/10 09:45	10/19/10 15:11	877-09-8	S4

## ANALYTICAL RESULTS

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

**Sample:** ESI FRAC 8 10-12      **Lab ID:** 5042370004      Collected: 10/12/10 15:15      Received: 10/12/10 16:15      Matrix: Non Aqueous Liquid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>								
Analytical Method: EPA 8082 Preparation Method: EPA 3580								
PCB-1016 (Aroclor 1016)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:23	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	mg/kg	40.0	20	10/14/10 09:45	10/19/10 15:23	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:23	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:23	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:23	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:23	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:23	11096-82-5	
Tetrachloro-m-xylene (S)	0 %		55-133	20	10/14/10 09:45	10/19/10 15:23	877-09-8	S4

## ANALYTICAL RESULTS

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

**Sample:** ESI FRAC 9 10-12      **Lab ID:** 5042370005      Collected: 10/12/10 15:30      Received: 10/12/10 16:15      Matrix: Non Aqueous Liquid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>								
Analytical Method: EPA 8082 Preparation Method: EPA 3580								
PCB-1016 (Aroclor 1016)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:35	12674-11-2	D3
PCB-1221 (Aroclor 1221)	ND	mg/kg	40.0	20	10/14/10 09:45	10/19/10 15:35	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:35	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:35	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:35	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:35	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	20.0	20	10/14/10 09:45	10/19/10 15:35	11096-82-5	
Tetrachloro-m-xylene (S)	0 %		55-133	20	10/14/10 09:45	10/19/10 15:35	877-09-8	S4

## QUALITY CONTROL DATA

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

QC Batch: OEXT/21355 Analysis Method: EPA 8082  
QC Batch Method: EPA 3580 Analysis Description: 8082 GCS PCB Oil  
Associated Lab Samples: 5042370001, 5042370002, 5042370003, 5042370004, 5042370005

METHOD BLANK: 494533 Matrix: Non Aqueous Liquid  
Associated Lab Samples: 5042370001, 5042370002, 5042370003, 5042370004, 5042370005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	1.0	10/19/10 14:36	
PCB-1221 (Aroclor 1221)	mg/kg	ND	2.0	10/19/10 14:36	
PCB-1232 (Aroclor 1232)	mg/kg	ND	1.0	10/19/10 14:36	
PCB-1242 (Aroclor 1242)	mg/kg	ND	1.0	10/19/10 14:36	
PCB-1248 (Aroclor 1248)	mg/kg	ND	1.0	10/19/10 14:36	
PCB-1254 (Aroclor 1254)	mg/kg	ND	1.0	10/19/10 14:36	
PCB-1260 (Aroclor 1260)	mg/kg	ND	1.0	10/19/10 14:36	
Tetrachloro-m-xylene (S)	%	108	55-133	10/19/10 14:36	

LABORATORY CONTROL SAMPLE: 494534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	5	4.0	81	50-150	
PCB-1260 (Aroclor 1260)	mg/kg	5	4.8	97	50-150	
Tetrachloro-m-xylene (S)	%			102	55-133	

## QUALIFIERS

Project: ESI Indpls / EE5-47

Pace Project No.: 5042370

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

### LABORATORIES

PASI-I Pace Analytical Services - Indianapolis

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

# PRECISION PETROLEUM LABS, INC.

## CERTIFICATE OF ANALYSIS


<b>LABORATORY ADDRESS</b> 5915 Star Lane, Houston, TX 77057 Ph. 713-680-9425 Fax: 713-680-9564 Website: precisionlabs.org	<b>Client Name:</b> Pace Analytical Services, Inc-IN <b>Street Address:</b> 7726 Moller Rd <b>City, State, Zip:</b> Indianapolis, IN 46268
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INVOICE No.	46738	DATE RECEIVED	10-15-2010
LAB REFERENCE No.	2010-10-320	DATE/TIME COLLECTED	10-12-10@14:30
AUTHORIZED BY	Kenneth Hunt	MATRIX TYPE	Liquid
PRODUCT ID	5042370001		

<u>TCLP METALS</u>	<u>CAS #</u>	<u>TEST METHOD</u>	<u>REPORTING LIMIT MG/L</u>	<u>RESULTS MG/L</u>	<u>REGULATORY LEVEL MG/L</u>
Arsenic	7440-38-2	EPA-1311/6010	0.500	BRL	5.000
Barium	7440-39-3	EPA-1311/6010	0.100	1.448	100.000
Cadmium	7440-43-9	EPA-1311/6010	0.100	BRL	1.000
Chromium	7440-47-3	EPA-1311/6010	0.150	1.521	5.000
Lead	7439-92-1	EPA-1311/6010	0.390	0.646	5.000
Mercury	7439-97-6	EPA-1311/6010	0.170	BRL	0.200
Selenium	7782-49-2	EPA-1311/6010	0.630	BRL	1.000
Silver	7440-22-4	EPA-1311/6010	0.130	BRL	5.000
<b>DATE ANALYZED: 10-19-2010</b>					
<b>ANALYST INITIALS: T.H.</b>					

  
Daniel Zabihi  
QA Manager

Date: 10-19-2010

  
PRIMARY ACCREDITATION TCEQ, #T104704203-TX  
ARIZONA LICENSE # AZ0630

QUALIFIERS & ABBREVIATIONS: BRL - Below Reporting Limit; SCL - Test performed by an approved subcontract laboratory; B - Analyte was detected in the associated method blank; Matrix spike/matrix spike duplicate (M), Laboratory control sample (L), Calibration criteria (C), and Surrogate (S) recoveries were outside acceptance limits. Test deviation applied to Method 8260 (VOCS).

COMMENTS: There were no quality assurance anomalies associated with these tests.

PRECISION PETROLEUM LABS, INC.'S RESPONSIBILITY FOR THE ABOVE ANALYSIS, OPINIONS OR INTERPRETATIONS IS LIMITED TO THE INVOICE AMOUNT. RESULTS ARE REPORTED ON AN "AS IS" BASIS, UNLESS OTHERWISE NOTED. THE TEST RESULTS RELATE ONLY TO THE SUBMITTED SAMPLE IDENTIFIED ON THIS REPORT. TEST RESULTS MEET ALL REQUIREMENTS OF NELAP FOR TESTS LISTED ON THE LABORATORY'S CURRENT FIELDS OF ACCREDITATION (EPA 1010, 6010, 8082, 8260, and 9075).




# PRECISION PETROLEUM LABS, INC.

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<b>LABORATORY ADDRESS</b> 5915 Star Lane, Houston, TX 77057 Ph. 713-680-9425 Fax: 713-680-9564 Website: precisionlabs.org	<b>Client Name:</b> Pace Analytical Services, Inc-IN <b>Street Address:</b> 7726 Moller Rd <b>City, State, Zip:</b> Indianapolis, IN 46268
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INVOICE No.	46738	DATE RECEIVED	10-15-2010
LAB REFERENCE No.	2010-10-321	DATE/TIME COLLECTED	10-12-10@14:05
AUTHORIZED BY	Kenneth Hunt	MATRIX TYPE	Liquid
PRODUCT ID	5042370002		

<u>TCLP METALS</u>	<u>CAS #</u>	<u>TEST METHOD</u>	<u>REPORTING LIMIT MG/L</u>	<u>RESULTS MG/L</u>	<u>REGULATORY LEVEL MG/L</u>
Arsenic	7440-38-2	EPA-1311/6010	0.500	BRL	5.000
Barium	7440-39-3	EPA-1311/6010	0.100	1.095	100.000
Cadmium	7440-43-9	EPA-1311/6010	0.100	BRL	1.000
Chromium	7440-47-3	EPA-1311/6010	0.150	0.867	5.000
Lead	7439-92-1	EPA-1311/6010	0.390	BRL	5.000
Mercury	7439-97-6	EPA-1311/6010	0.170	BRL	0.200
Selenium	7782-49-2	EPA-1311/6010	0.630	BRL	1.000
Silver	7440-22-4	EPA-1311/6010	0.130	BRL	5.000
DATE ANALYZED: 10-19-2010					
ANALYST INITIALS: T.H.					

  
Daniel Zabihi  
QA Manager

Date: 10-19-2010

  
PRIMARY ACCREDITATION TCEQ, #T104704203-TX  
ARIZONA LICENSE # AZ0630

QUALIFIERS & ABBREVIATIONS: BRL - Below Reporting Limit; SCL - Test performed by an approved subcontract laboratory; B - Analyte was detected in the associated method blank; Matrix spike/matrix spike duplicate (M), Laboratory control sample (L), Calibration criteria (C), and Surrogate (S) recoveries were outside acceptance limits. Test deviation applied to Method 8260 (VOCS).

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# Sample Condition Upon Receipt

Face Analytical

Client Name: Environmental Restoration

Project # 5042370

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other \_\_\_\_\_

Thermometer Used 123456 ABCDE

Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 27.2°C

Ice Visible in Sample Containers: ☐ yes ☒ no

Temp should be above freezing to 6°C

Just Sampled -

Comments:

Date and Initials of person examining contents: 10/12/10/mw

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
-Includes date/time/ID/Analysis		
All containers needing preservation have been pH checked?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
<b>Project Manager Review</b>		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review:

[Signature]

Date: 10/13/10

# Sample Container Count

CLIENT: Environmental Restoration

COC PAGE 1 of 1  
COC ID#                     

Project # 9042370



Sample Line

Item	DG9H	AG1U	WG9U	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

## Container Codes

DG9H	40mL HCL amber vial	AF	Air Filter	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1 liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WG9U	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	BP3A	250mL NaOH, Asc Acid plastic	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag